Haier SERVICE MANUAL

LCD TV

Model No. LEC32B33200

MSD318 **Chassis**

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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Haier Group

Chapter 1: General Information

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1-2. General Guidelines

When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.

After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.

After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.
1) Leakage Current Cold Check
2) Leakage Current Hot Check
3) Prevention of Electro Static Discharge (ESD) to Electrostatically Sensitive

1-3. Important Notice

1-3-1. Follow the regulations and warnings

Most important thing is to list up the potential hazard or risk for the service personnel to open the units and disassemble the units. For example, we need to describe properly how to avoid the possibility to get electrical shock from the live power supply or charged electrical parts (even the power is off).

This symbol indicates that high voltage is present inside.It is dangerous to make any king of contact with any inside part of this product.

This symbol indicates that there are important operating and maintenance instructions in the literture accompanying the appliance.

1-3-2. Be careful to the electrical shock

To prevent damage which might result in electric shock or fire, do not expose this TV set to rain or excessive moisture. This TV must not be exposed to dripping or splashing water, and objects filled with liquid, such as vases, must not be placed on top of or above the TV.

1-3-3. Electro static discharge (ESD)

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. The following techniques should be used to help reduce the incidence of component damage caused by electros static discharge (ESD).

1-3-4. About lead free solder (PbF)

This product is manufactured using lead-free solder as a part of a movement within the consumer products industry at large to be environmentally responsible. Lead-free solder must be used in the servicing and repairing of this product.

1-3-5. Use the genewing parts (specified parts)

Special parts which have purposes of fire retardant (resistors), high-quality sound (capacitors), low noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacture's specified parts shown in the parts list.

Safety Component

● Components identified by mark have special characteristics important for safety.

1-3-6 Safety Check after Repairment

Confirm that the screws, parts and wiring which were removed in order to service are put in the original positions, or whether there are the positions which are deteriorated around the serviced places serviced or not. Check the insulation between the antenna terminal or external metal and the AC cord plug blades. And be sure the safety of that.

General Servicing Precautions

1. Always unplug the receiver AC power cord from the AC power source before;
   a. Removing or reinstalling any component, circuit board module or any other receiver assembly.
   b. Disconnecting or reconnecting any receiver electrical plug or other electrical connection.
   c. Connecting a test substitute in parallel with an electrolytic capacitor in the receiver.

CAUTION: A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.

2. Test high voltage only by measuring it with an appropriate high voltage meter or other voltage measuring device (DVM, FETVOM, etc) equipped with a suitable high voltage probe.

Do not test high voltage by "drawing an arc".

3. Do not spray chemicals on or near this receiver or any of its assemblies.

4. Unless specified otherwise in this service manual, clean electrical contacts only by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable non-abrasive applicator; 10% (by volume) Acetone and 90% (by volume) isopropyl alcohol (90%-99% strength).

CAUTION: This is a flammable mixture.
Unless specified otherwise in this service manual, lubrication of contacts is not required.
Capacitors may result in an explosion hazard.

5. Do not defeat any plug/socket B+ voltage interlocks with which receivers covered by this service manual might be equipped.

6. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.

7. Always connect the test receiver ground lead to the receiver chassis ground before connecting the test receiver positive lead.

Always remove the test receiver ground lead last. Capacitors may result in an explosion hazard.

8. Use with this receiver only the test fixtures specified in this service manual.

CAUTION: Do not connect the test fixture ground strap to any heat sink in this receiver.

9. Remove the antenna terminal on TV and turn on the TV.

10. Insulation resistance between the cord plug terminals and the eternal exposure metal should be more than Mohm by using the 500V insulation resistance meter.

11. If the insulation resistance is less than M ohm, the inspection repair should be required. If you have not the 500V insulation resistance meter, use a Tester. External exposure metal: Antenna terminal Headphone jack

Electrostatically Sensitive (ES) Devices

Some semiconductor (solid-state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the ncidence of component damage caused by static by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed to prevent potential shock reasons prior to applying power to the unit under test.

2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.

3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.

4. Use only an anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.

5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.

6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it.
(Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).

7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

1-3-7. Ordering Spare Parts

Please include the following informations when you order parts. (Particularly the Version letter)

1. Model number, Serial number and Software Version
The model number and Serial number can be found on the back of each product and the Software Version can be found at the Spare Parts List.

2. Spare Part No. and Description
You can find them in the Spare Parts List

1-3-8. Photo used in this manual

The illustration and photos used in this Manual may not base on the final design of products, which may differ from your products in some way.

1-4. How to Read this Service Manual

Using Icons:
Icons are used to attract the attention of the reader to specific information. The meaning of each icon is described in the table below:

Note:
A “note” provides information that is not indispensable, but may nevertheless be valuable to the reader, such as tips and tricks.

Caution:
A “caution” is used when there is danger that the reader, through incorrect manipulation, may damage equipment, loose data, get an unexpected result or has to restart(part of) a procedure.

Warning:
A “warning” is used when there is danger of personal injury.

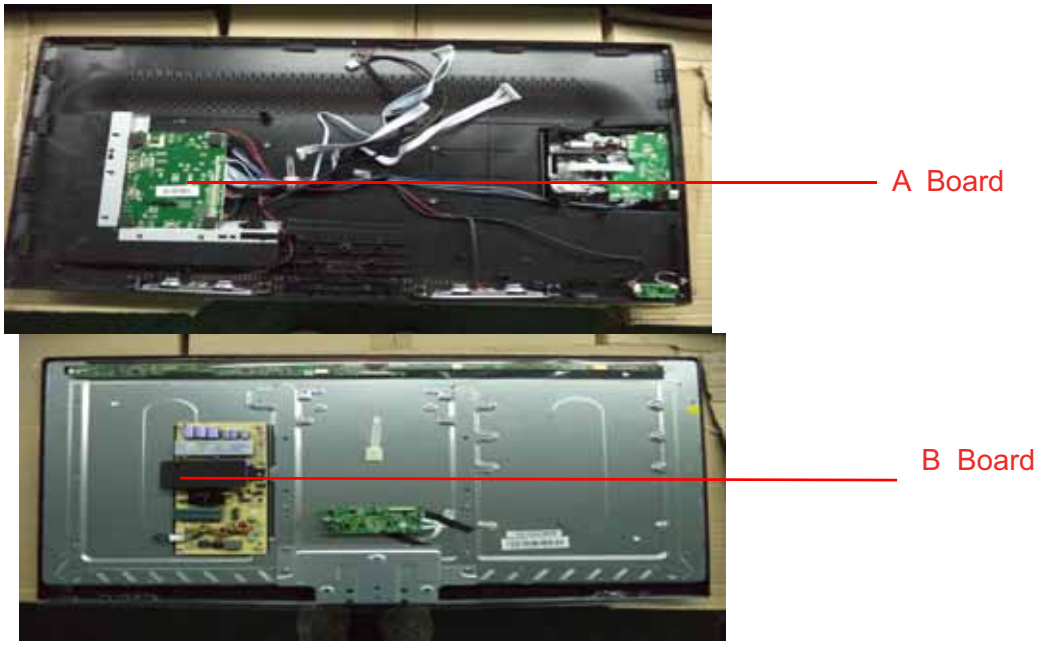
Reference:
A “reference” guides the reader to other places in this binder or in this manual, where he/she will find additional information on a specific topic.

2. Specifications

Model	**LEC32B33200**
Screen Size	31.5 inch
Aspect Ratio	16:9
Resolution	1366x768
Response Time (ms)	6.5 (GRAY TO GRAY)
Angel of View	+88/-88(H), +88/-88 (V) Typ.
Color Display	16.7M
No. of Preset Channels	Cable :1-135/ Air: 2-69(ATV&DTV)
OSD Language	English
Color System	NTSC
Audio System	M
Audio Output Power (Built-in) (W)	8W×2
Audio Output Power (outer) (W)	No
Total Power Input (W)	120W
Voltage Range (V)	AC100V-240V
Power Frequency (Hz)	50~60Hz
Net Weight (KG)	9.5
Gross Weight (KG)	12.2
Net Dimension (MM)	793*113*511
Packaged Dimension (MM)	980*205*626

3. Location of Controls and Components

3-1 Board Location



No.	Description	LEC32B33200
A Board	Main Board	DH00DLM0000M
B Board	Power Board	514C3207M06

3-2 Main Board

3-2-1 Function Description:

Main Board

Process signal which incept from exterior equipment then translate into signal that panel can display.

3-2-2 Connector defnition

Main board connector

Power connectors (J15，J16)

J16		J15	
Pin number	Signal name	Pin number	Signal name
1	+5V	1	GND
2	BL ON/OFF	2	GND
3	BL ADJST	3	+5V
4	high voltage	4	+5V
5	GND	5	POWER ON/OFF
		6	+5VSTB
		7	+5V
		8	+5V
		9	GND
		10	GND
		11	GND
		12	+12V
		13	+12V

Notes:

J16-Pin 2: Backlight on/off:

The system can turn on or turn off the backlight of TFT LCD Panel through the power supply unit path.

J15-Pin 5: System power on / standby

System board will use this pin to control system power.

J16-Pin 3: Control the luminance of backlight

The system can generate the PWM signal to control the strength of TFT LCD Panel's backlight through this connector

remote connector (J6)

Pin number	Signal name	Description
1	LED_R	LAMP RED
2	LED_G	LAMP GREEN
3		
4	IR	REMOTE CONTROL
5	GND	GND
6	5V	POWER FOR REMOTE

Keypad and connector (J7)

Pin number	Signal name	Description
1	KEY1	
2	KEY0	
3	GND	

Speaker connector J11

Pin number	Signal nameD	escription
1	RSPK+	RSPK+
2	RSPK-	RSPK-
3	LSPK-	LSPK-
4	LSPK+	LSPK+

3-3. Power Board

3-3-1 Function Description:

Supply power for Main board, Panel.

3-3-2Connectordefinition

CN3		CN2	
Pin number	Signal name	Pin number	Signal name
1	+24	1	+12V
2	+24	2	+12V
3	+24	3	GND
4	+24	4	GND
5	GND	5	GND
6	GND	6	+5V
7	GND	7	+5V
8	GND	8	+5VSTB
		9	POWER ON/OFF
		10	+5V
		11	+5V
		12	+5V
		13	GND

3-4. LCD Panel

MTC315LED-D01H(PANDA:LM315TA-T01)

3-4-1 Function Description: Display the signal.

3-4-2 Connector definition.

Pin No.	Symbol		Remark
1	VCC	+12V Power Supply	
2	VCC	+12V Power Supply	
3	VCC	+12V Power Supply	
4	VCC	+12V Power Supply	
5	GND	Ground	
6	GND	Ground	
7	GND	Ground	
8	GND	Ground	
9	SELLVDS	Select LVDS data order[Note1]	Default: pull down (L:GND) [Note2]
10	Reserved	Not Available	
11	GND	Ground	
12	RIN0-	Negative(-) LVDS differential data input	LVDS
13	RIN0+	Positive(+) LVDS differential data input	LVDS
14	GND	Ground	
15	RIN1-	Negative(-) LVDS differential data input	LVDS
16	RIN1+	Positive(+) LVDS differential data input	LVDS
17	GND	Ground	
18	RIN2-	Negative(-) LVDS differential data input	LVDS
19	RIN2+	Positive(+) LVDS differential data input	LVDS
20	GND	Ground	
21	CLKIN-	Clock Signal(-)	LVDS
22	CLKIN+	Clock Signal(+)	LVDS
23	GND	Ground	
24	RIN3-	Negative(-) LVDS differential data input	LVDS
25	RIN3+	Positive(+) LVDS differential data input	LVDS
26	GND	Ground	
27	Reserved	Not Available	
28	Reserved	Not Available	
29	GND	Ground	
30	GND	Ground	

4. Disassemble and assemble

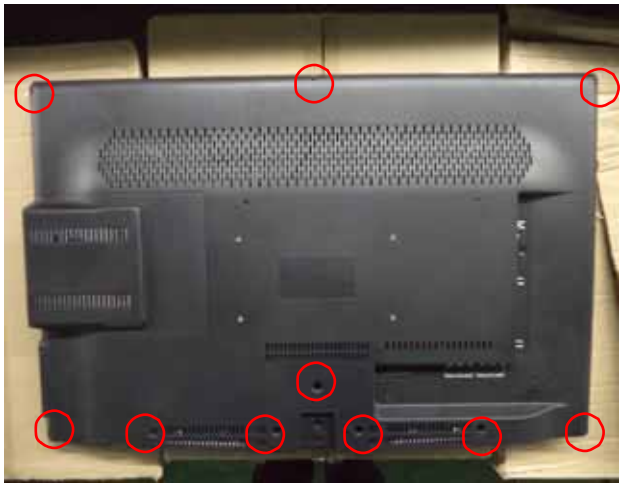
4-1 Remove the Pedestal

Lay down the unit so that rear cover faces upward

Remove the four screw from the rear cover indicated with ○

Then remove the pedestal

4-2Remove the Back Cover



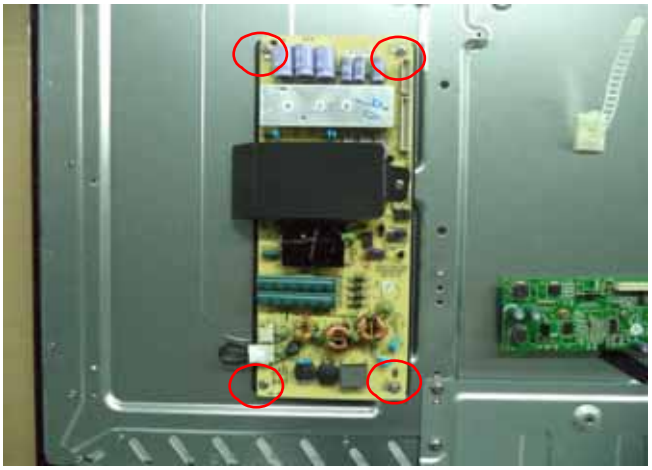
Remove the these screw indicated on figure above by ○

Then remove the back cover from the unit.

4-3. Remove the adhesive tape

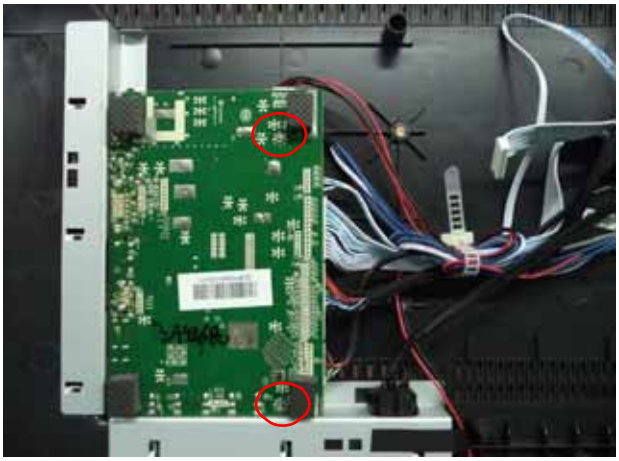
Remove the adhesive tape indicated on the figure above

4-4 Remove the power module



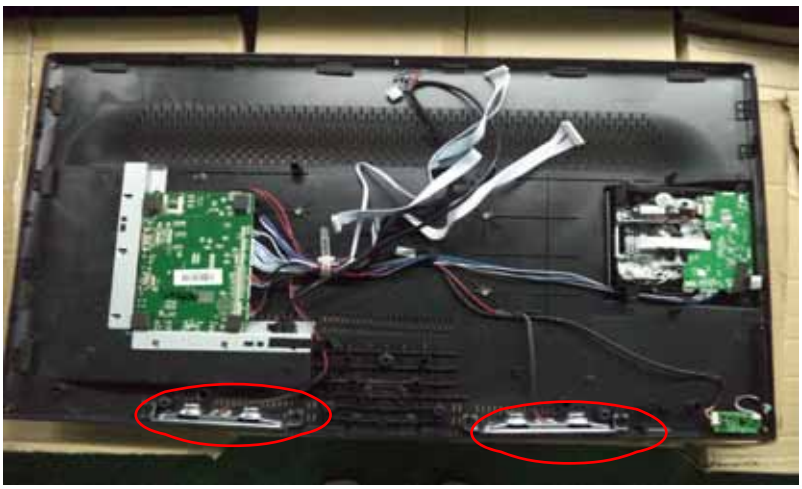
Remove the four screw indicated on the figure above by ○
Then remove the power module

4-5 Remove the Main board



Remove the two screw indicated on the figure above by ○
Disconnected the coupler
J6 J7 J9 J15 J16 J5 J3 J11 J17
Remove the Main board

4-6 Remove the speaker



Take out the speaker

4-7 Remove the remote control

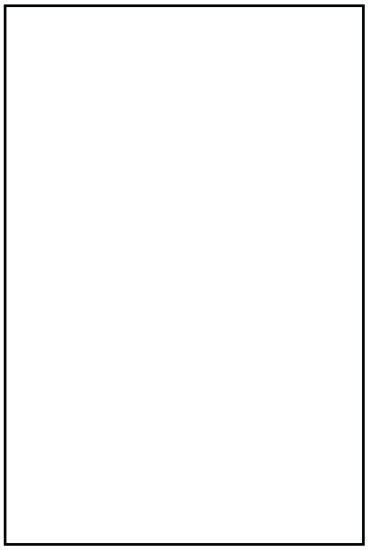
take out the remote control board

5. Installation Instructions

5-1 External Equipment Connections

Accessories

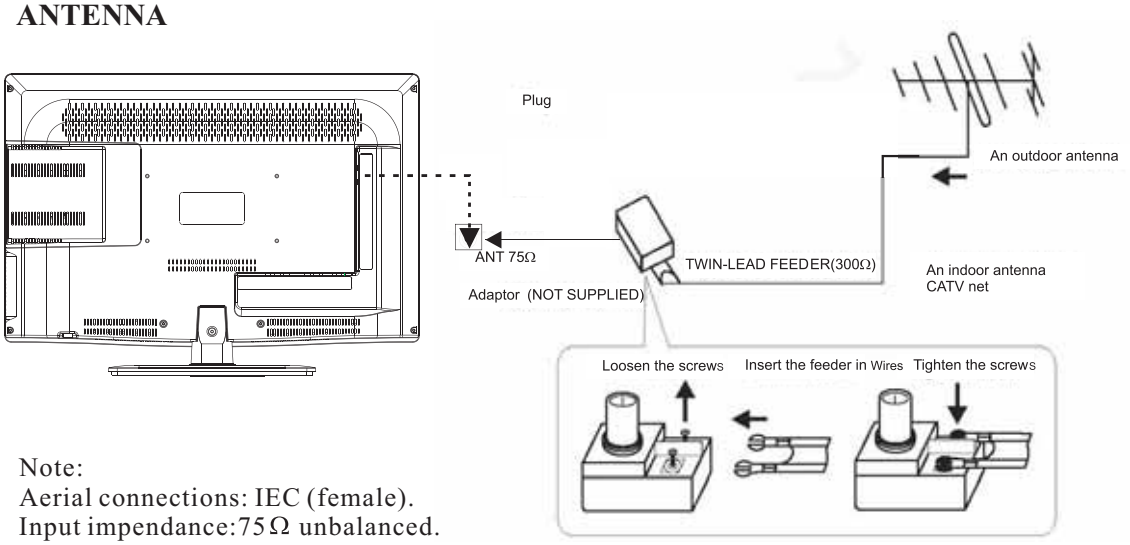
Remote Control



User GUIDE

Battery

ANTENNA

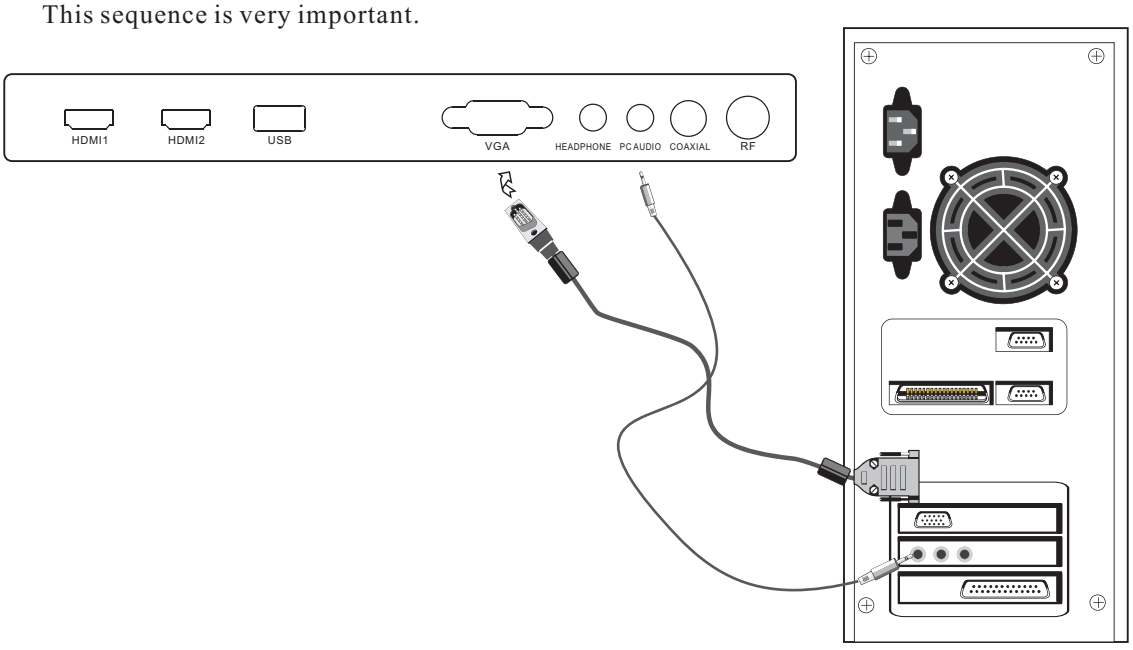


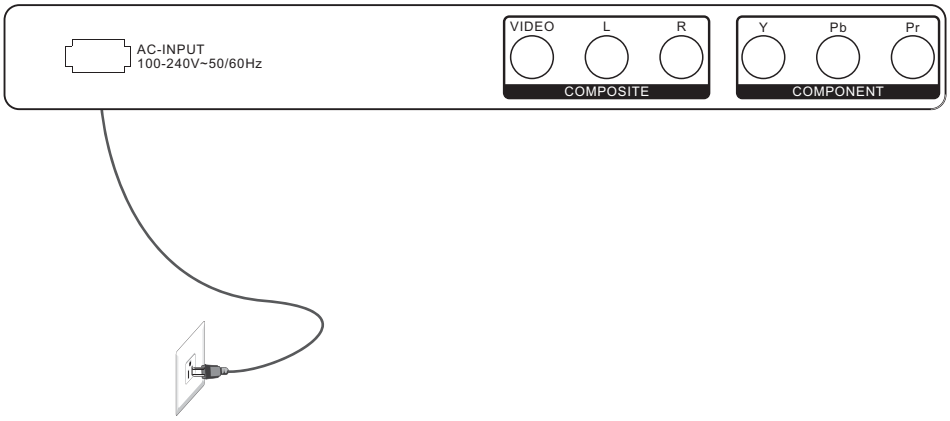
Note:
Aerial connections: IEC (female).
Input impendance:75Ω unbalanced.

PC

STEPS:

Be sure both the TV and computer are set to Power off.
1.Connect VGA and audio cable.
2.Connect the power cord.
3.Power on the TV, switch to PC mode.
4.Power on the PC.
This sequence is very important.





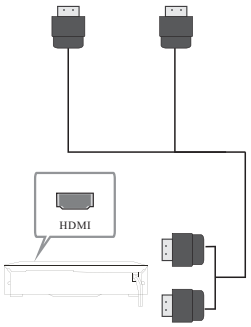
PC

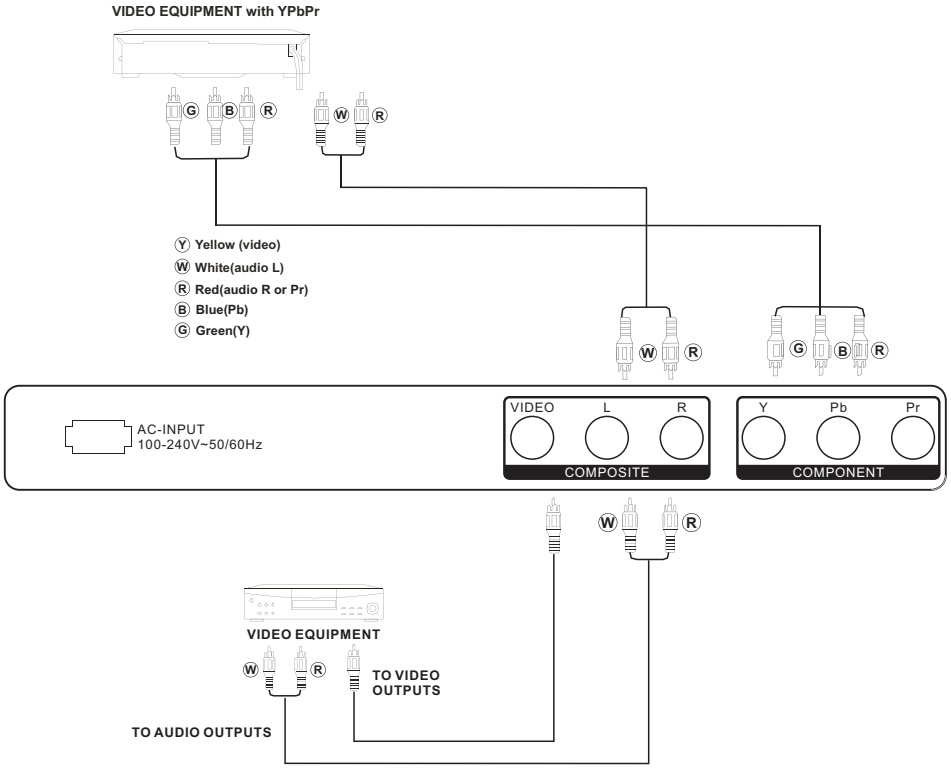
PRESET MODE

	RESOLUTION	V.Freq.(Hz)	H.Freq.(KHz)
1	720*400	70	31.47
2	640*480	60	31.47
3	640*480	75	37.50
4	800*600	60	37.88
5	800*600	75	46.88
6	1024*768	60	48.36
7	1024*768	70	56.48
8	1024*768	75	60.02
9	1280*1024	60	63.98
10	1280*1024	75	80.00
11	1366*768	60	80.00

AV EQUIPMENT

You can use the input terminals on TV set rear as follows.





The television's inputs can be connected to the following types of equipment: VCR, multi disc player, DVD, camcorder, video game or stereo system, etc.....
YPbPr can support these video formats:480i,576i,480p,576p,720p,1080i.

5-2 HDMI Connections

When the source device(DVD player or Set Top Box) supports HDM
How To Connect

1. Connect the source device to HDMI port of this TV with an HDMI cable(not supplied with this product).
2. No separated audio connection is necessary.

How To Use
If the source device supports Auto HDMI function, the output resolution of the source device will be automatically
set to 1280x720p.
If the source device does not support Auto HDMI, you need to set the output resolution appropriately.
To get the best picture quality, adjust the output resolution of the source device to 1280x720p.
Select HDMI input source in input source option of Select Main source menu.

When the source device(DVD player or Set Top Box) supports DVI
How To Connect
1. Connect the source device to HDMI port of this TV with a HDMI-to-DVI cable(not supplied with this product).
2. A separated audio connection is necessary.
3. If the source device has an analog audio output connector, connect the source device audio output to DVI Audio In port located on the PC port.

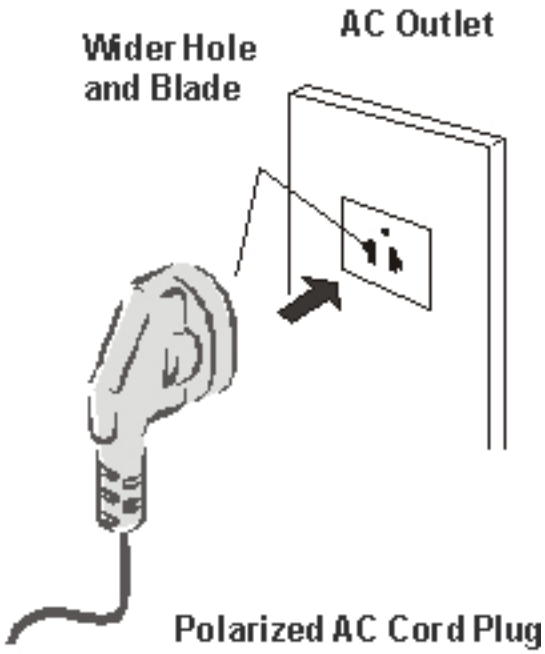
How To Use
If the source device supports Auto DVI function, the output resolution of the source device will be automatically
set to 1280x720p.
If the source device does not support Auto DVI, you need to set the output resolution appropriately.
To get the best picture quality, adjust the output resolution of the source device to 1280x720p.
Press the INPUT button to select HDMI input source in input source option of Select Main source menu.
Installation

Cable sample

	HDMI Cable (not supplied with the product)
	HDMI to DVI Cable (not supplied with the product)
	Analog Audio Cable (Stereo to RCA type) (not supplied with the product)

Connecting Headphones

You can connect a set of headphones to your set if you wish to watch a TV programmer without disturbing the other people in the room.



Power source

TO USE AC POWER SOURCE

Use the AC polarized line cord provided for operation on AC.
Insert the AC cord plug into a standard polarized AC outlet.
NOTES:

■ Never connect the AC line cord plug to other than the specified voltage.
Use the attached power cord only.

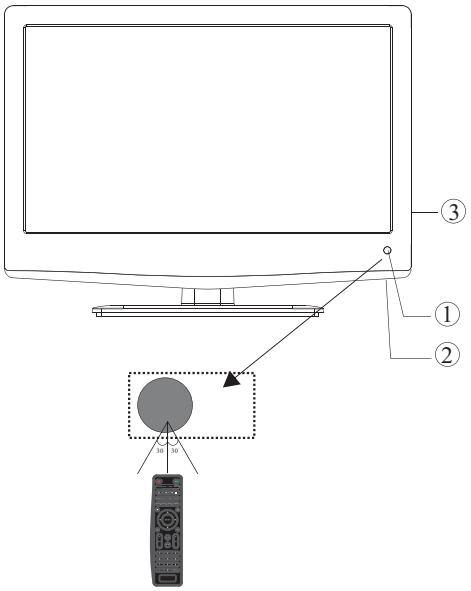
■ If the polarized AC cord does not fit into a non-polarized AC outlet,
do not attempt to file or cut the blade. It is the user`s responsibility to have an
electrician replace the obsolete outlet.

■ If you cause a static discharge when touching the unit and the unit fails to function, simply unplug the unit from the AC outlet and plug it back in. The unit should return to normal operation.

6. Operation Instructions

6-1 Front panel controls

Front panel

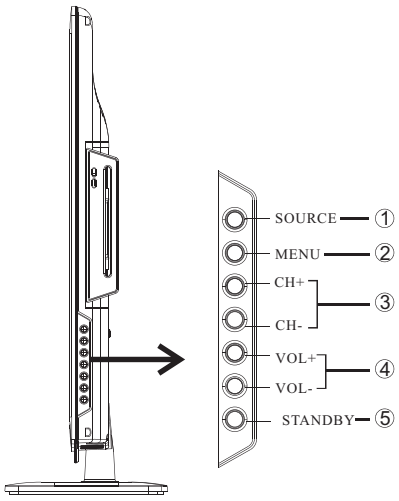


1: Remote control sensor.

2: Indicator LED: BLUE ○ POWER ON.
RED ● STANDBY.

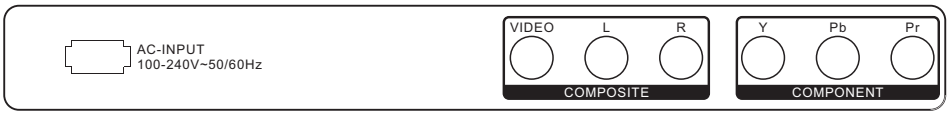
3: Side panel keys

Side panel



1. SOURCE: Display the input source menu.
2. MENU: Display main MENU.
3. CH+/CH-: In TV mode, press "CH+" or "CH-" to change the channel up and down. In MENU mode, press "CH+" or "CH-" to select items in standby mode, press "CH+" or "CH-" to turn on the TV.
4. VOL+/VOL-: Adjust sound level. In MENU mode, press "VOL+ " or "VOL- " to adjust the item that you selected.
5. STANDBY: Press this button to turn the unit ON from STANDBY mode. Press it again to turn the set back to STANDBY.

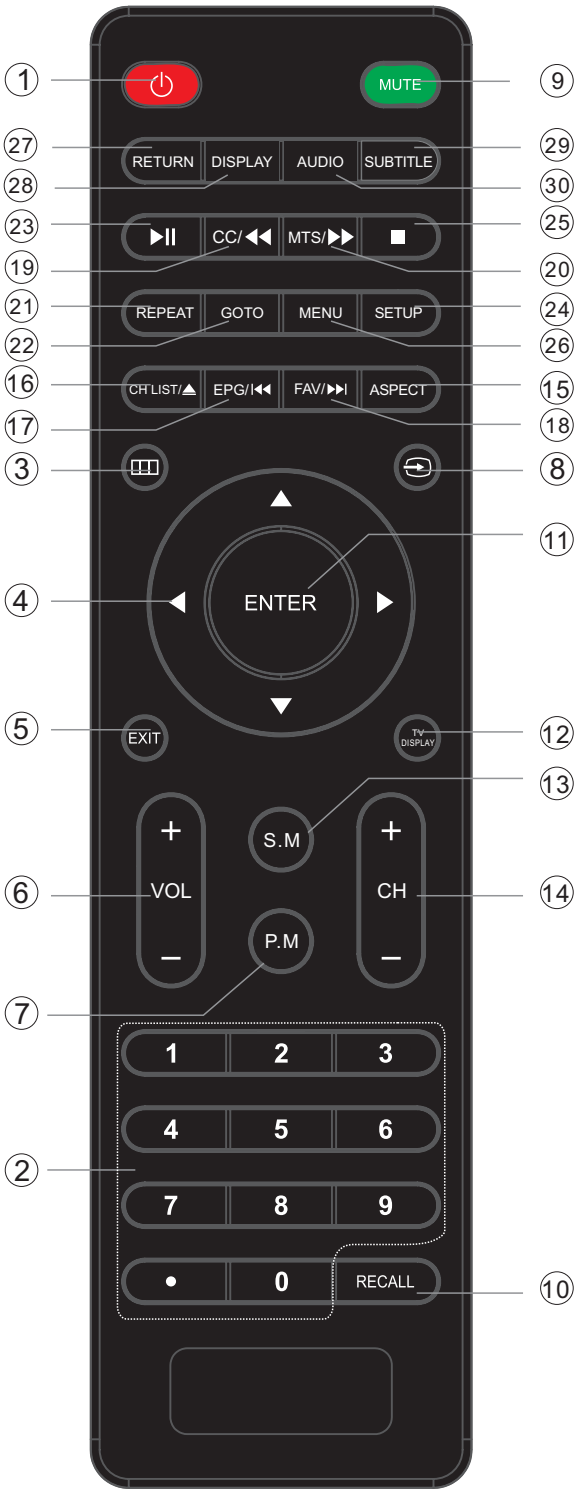
REAR Connections



All the terminals are (from left to right):
POWER SOCKET, VIDEO, AUDIO INPUT, YPbPr INPUT
Note: AV and YPbPr share one audio channel.

SIDE Connections

All the terminals are (from left to right):
HDMI1, HDMI2, USB, VGA, HEADPHONE, PC AUDIO, COAXIAL, RF.
Note: 1. When HDMI1 has an input signal coming from a DVI source then the audio input signal must be connected to the PC audio input.
2. When HDMI2 has an input signal coming from a DVI source then the audio input signal must be connected to the YPbPr/AV audio input.

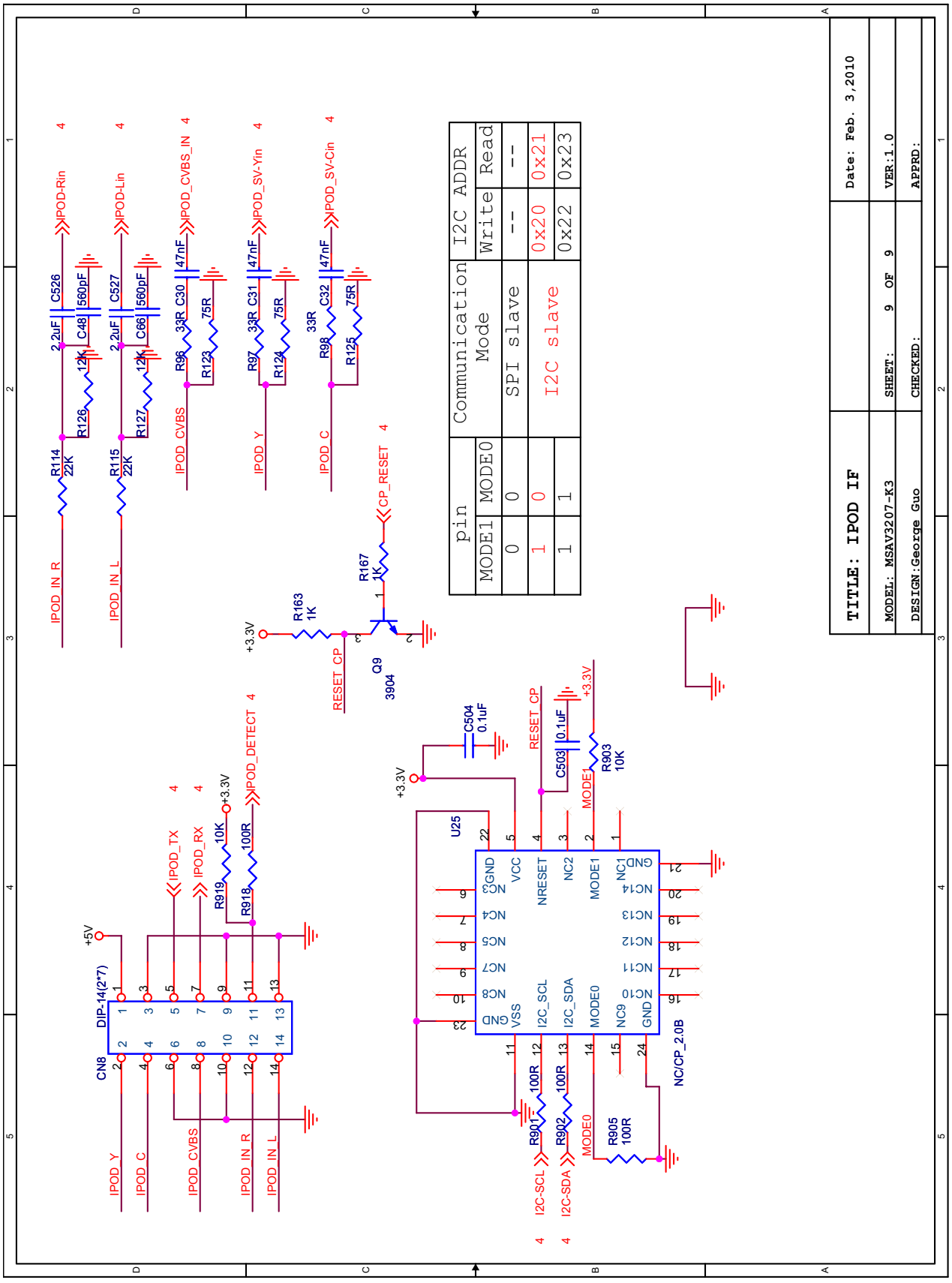


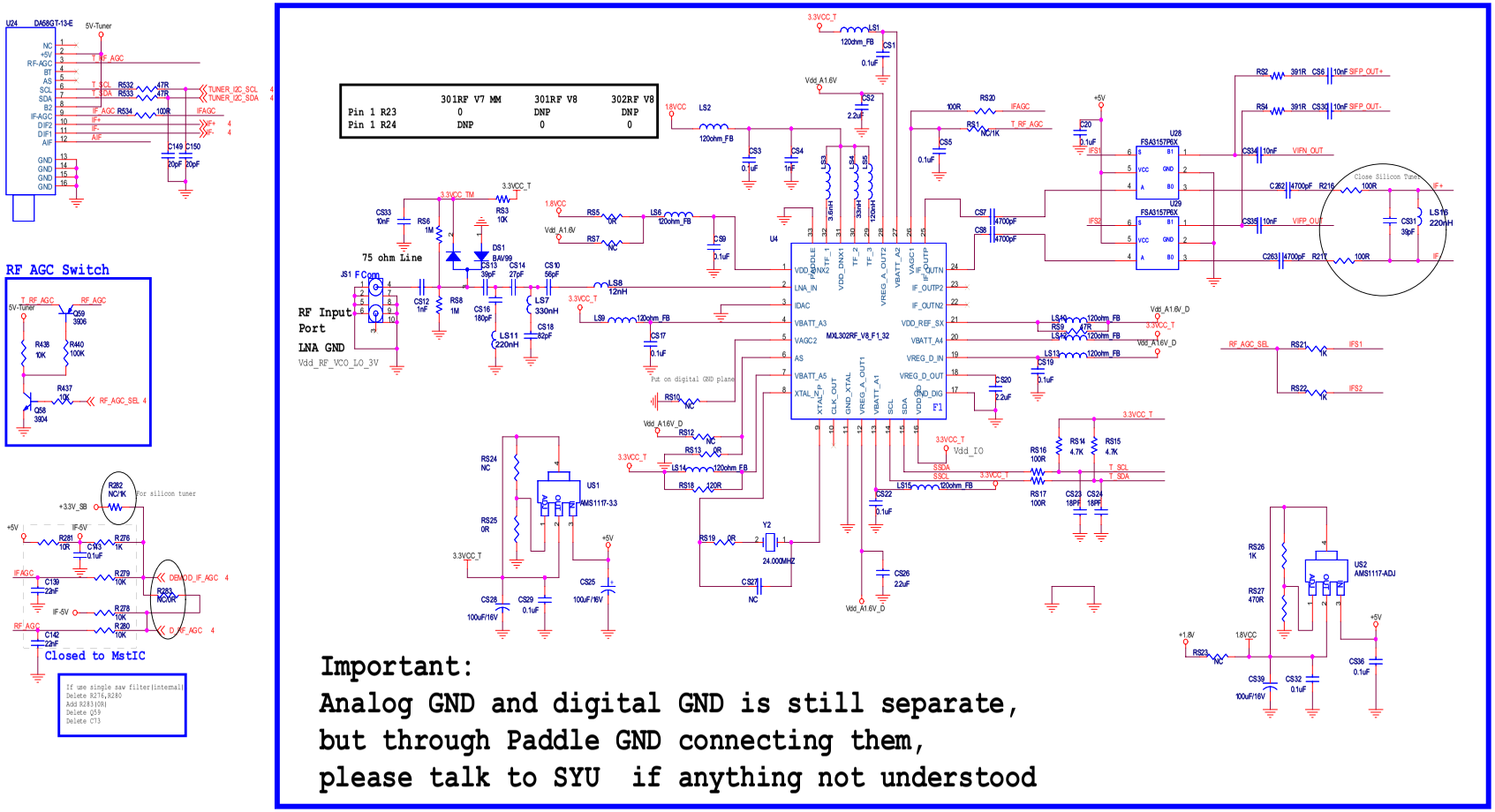
1: **POWER**
To set the TV standby or on.
2: **NUMBER KEY**
For direct access to program.
3:
Displays the main on-screen menu.
4: **CURSOR**
To move within the menu.
5: **EXIT**
Used to exit menu.
6: **VOL+/VOL-**
To adjust sound level.
7: **P.M**
To switch picture mode.
8:
Press to display and select the available video sources.
9: **MUTE**
To disable or enable the sound.
10: **RECALL**
To access the previously viewed program.
11: **ENTER**
Confirms selection.
12: **TV DISPLAY**
Displays/removes the program Information
13: **S.M**
To switch sound mode.
14: **CH+/CH-**
To access the next or previous Program.
15: **ASPECT**
To change picture aspect .
16: **CH LIST /⏏**
Used to display the channel list / Eject or Insert the disc.
17: **EPG**
Display all the information of DTV programs.
18: **FAV**
Used to access your favourite channels in digital TV mode.
19: **CC**
Enable or disable the CC function.
20: **MTS**
Switch the sound stereo.

For a description of the DVD player function buttons on the remote, please refer to page 20 of this manual.

7. Electrical parts

7-1. Circuit Diagram

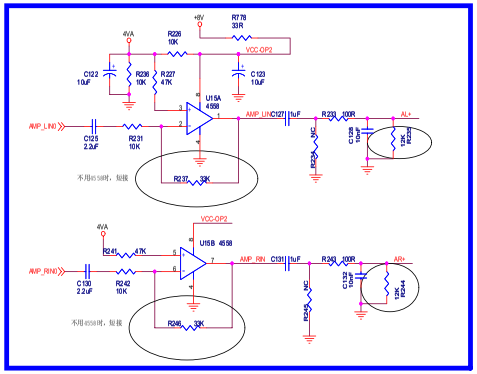



RF AGC Switch
75 ohm Line
RF Input Port
LNA GND
Vdd_RF_VCO_LO_3V
Closed to MstIC
Close Silicon Tuner
Put on digital GND plane
Important:
Analog GND and digital GND is still separate,
but through Paddle GND connecting them,
please talk to SYU if anything not understood
5.19V 116mA (ATV)
If use single saw filter(internal),
Delete these parts of this area

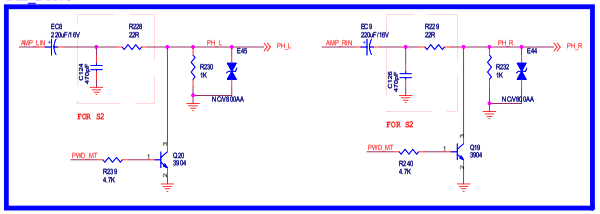
	301RF V7 MM	301RF V8	302RF V8
Pin 1 R23	0	DNP	DNP
Pin 1 R24	DNP	0	0

TITLE: TUNER		Date: Feb. 3,2010
MODEL: MSAV3207-K3	SHEET: 8 OF 9	VER:1.0
DESIGN:George Guo	CHECKED:	APPRD:

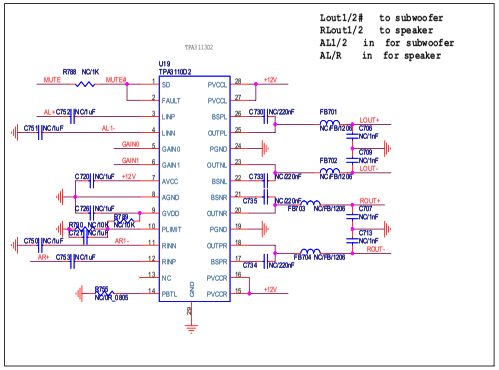
AUDIO Pre AMP



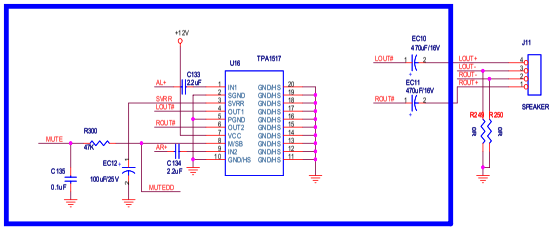
PH_Drive



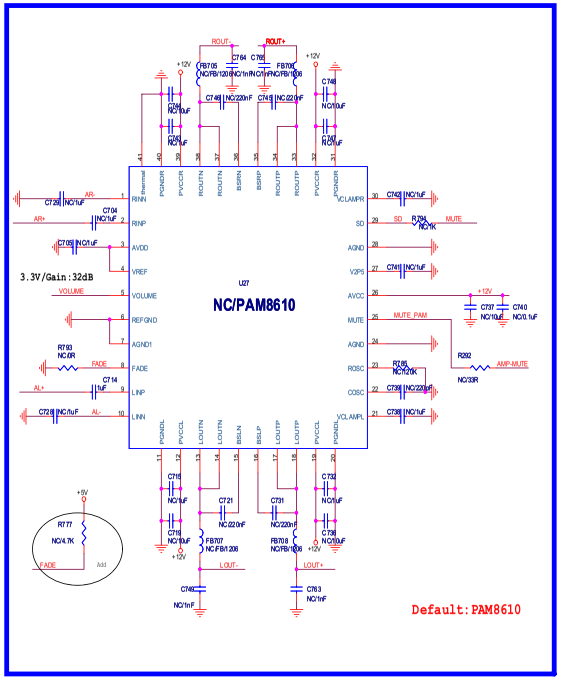
Lout1/2# to subwoofer
RLout1/2 to speaker
AL1/2 in for subwoofer
AL/R in for speaker

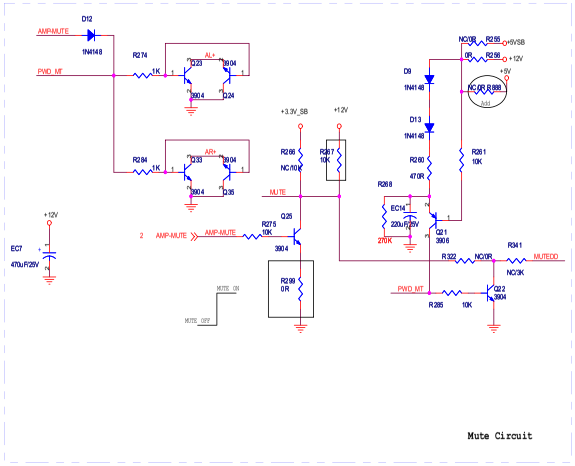


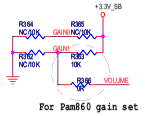
TDA1517



PAM8610



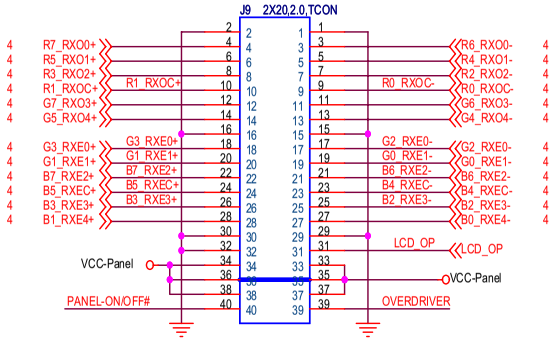


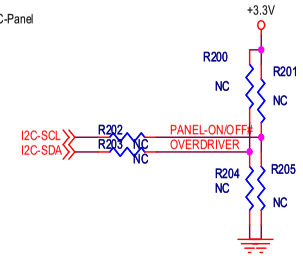


For Pam860 gain set

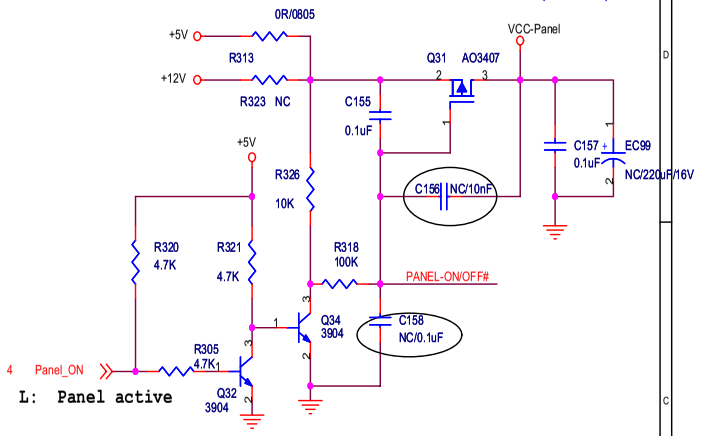
TITLE: AUDIO		Date: Feb. 3,2010
MODEL: MSAV3207-M3	SHEET: 7 OF 9	VER:1.0
DESIGN:George Guo	CHECKED:	APPRD:

LVDS CONNECTOR

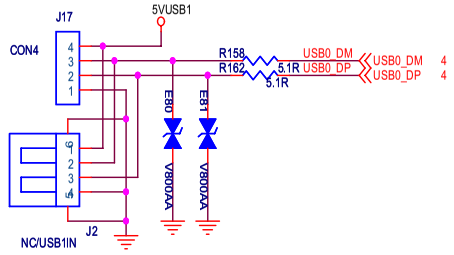


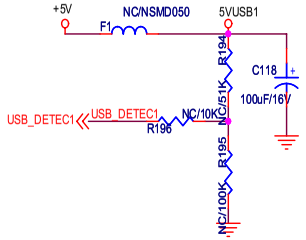


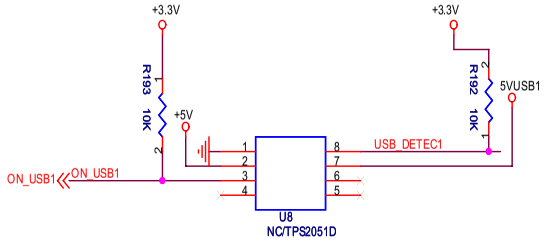
4.99V 625mA (1080P)



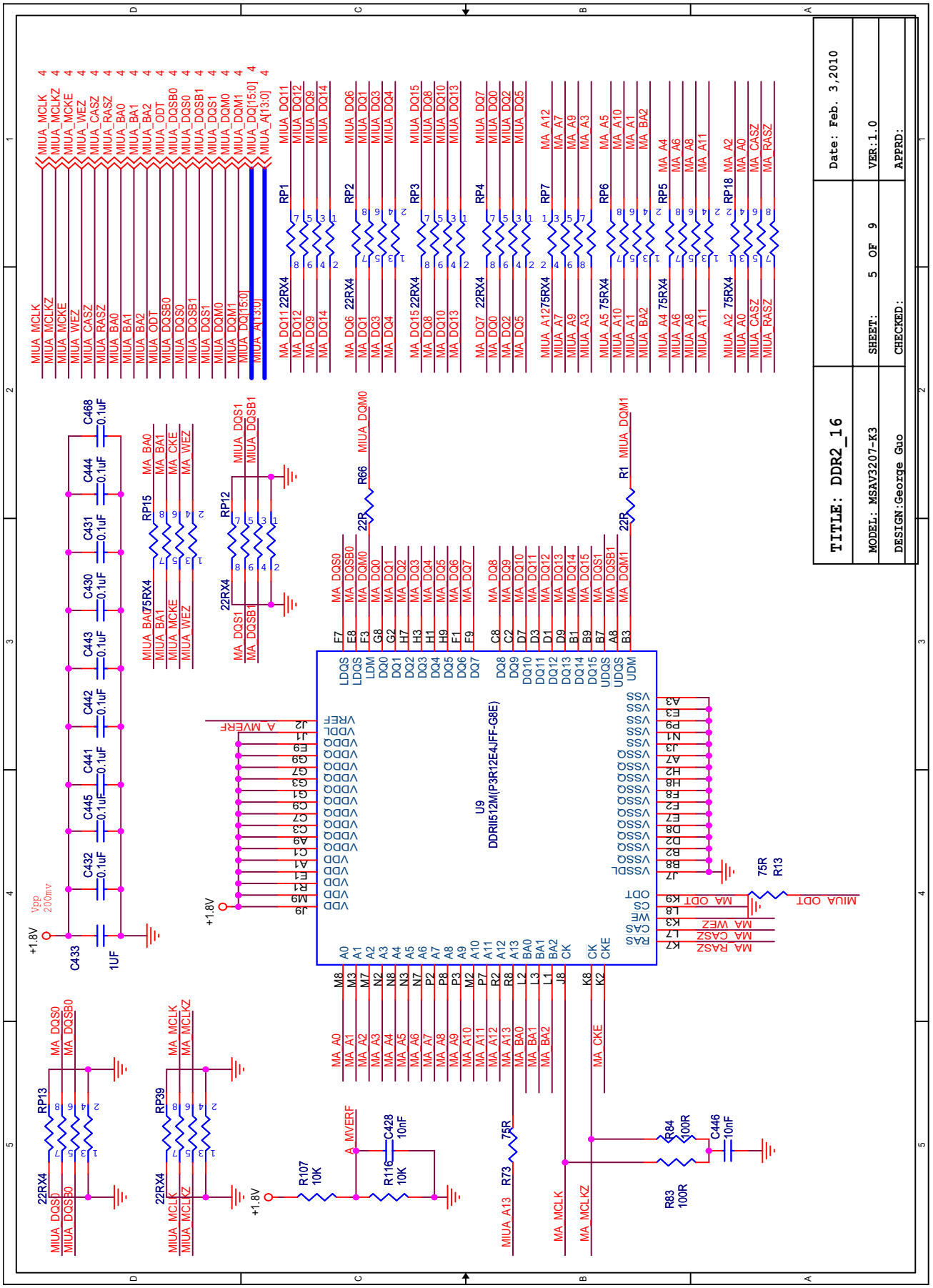
USB Interface

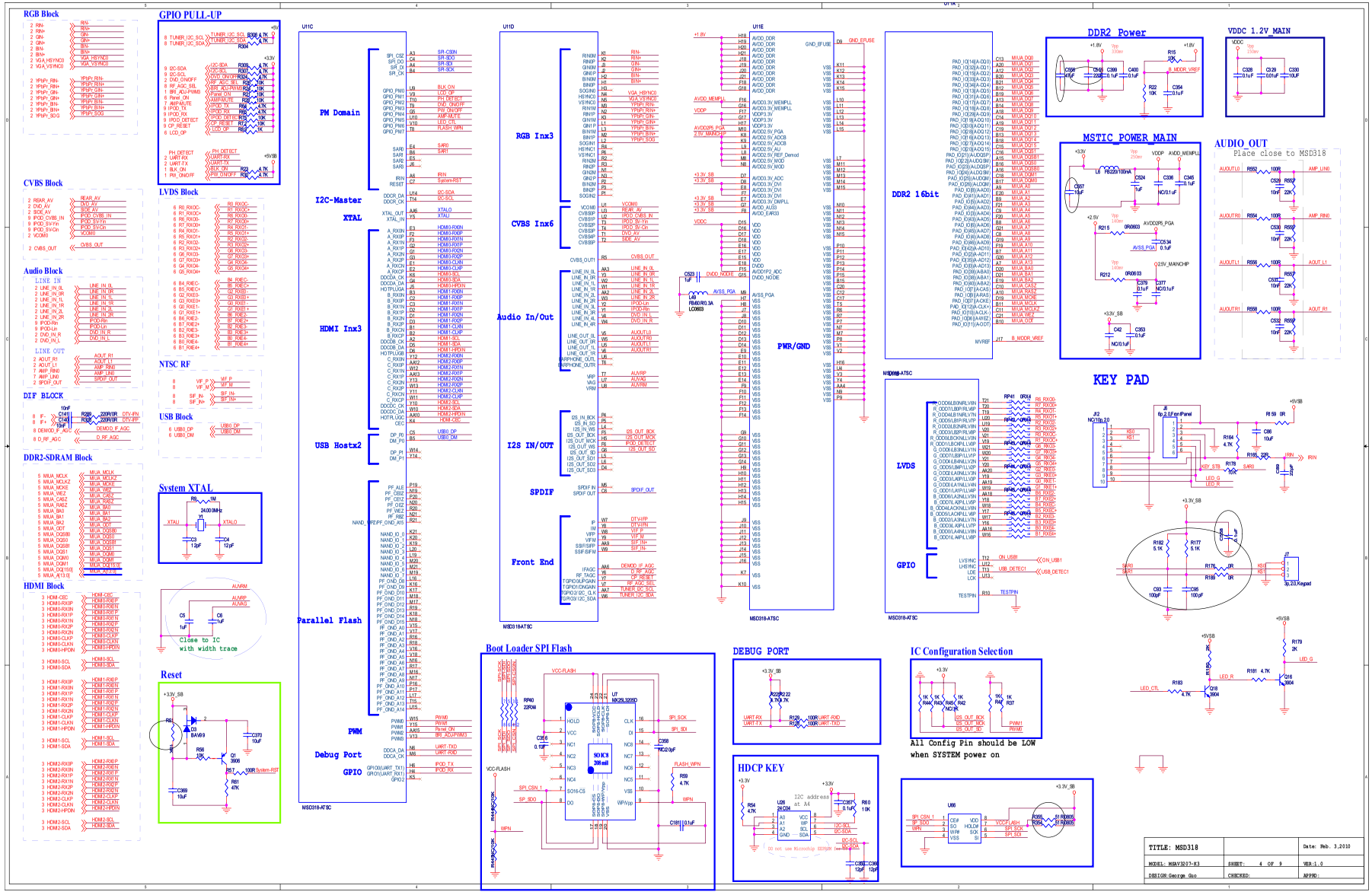


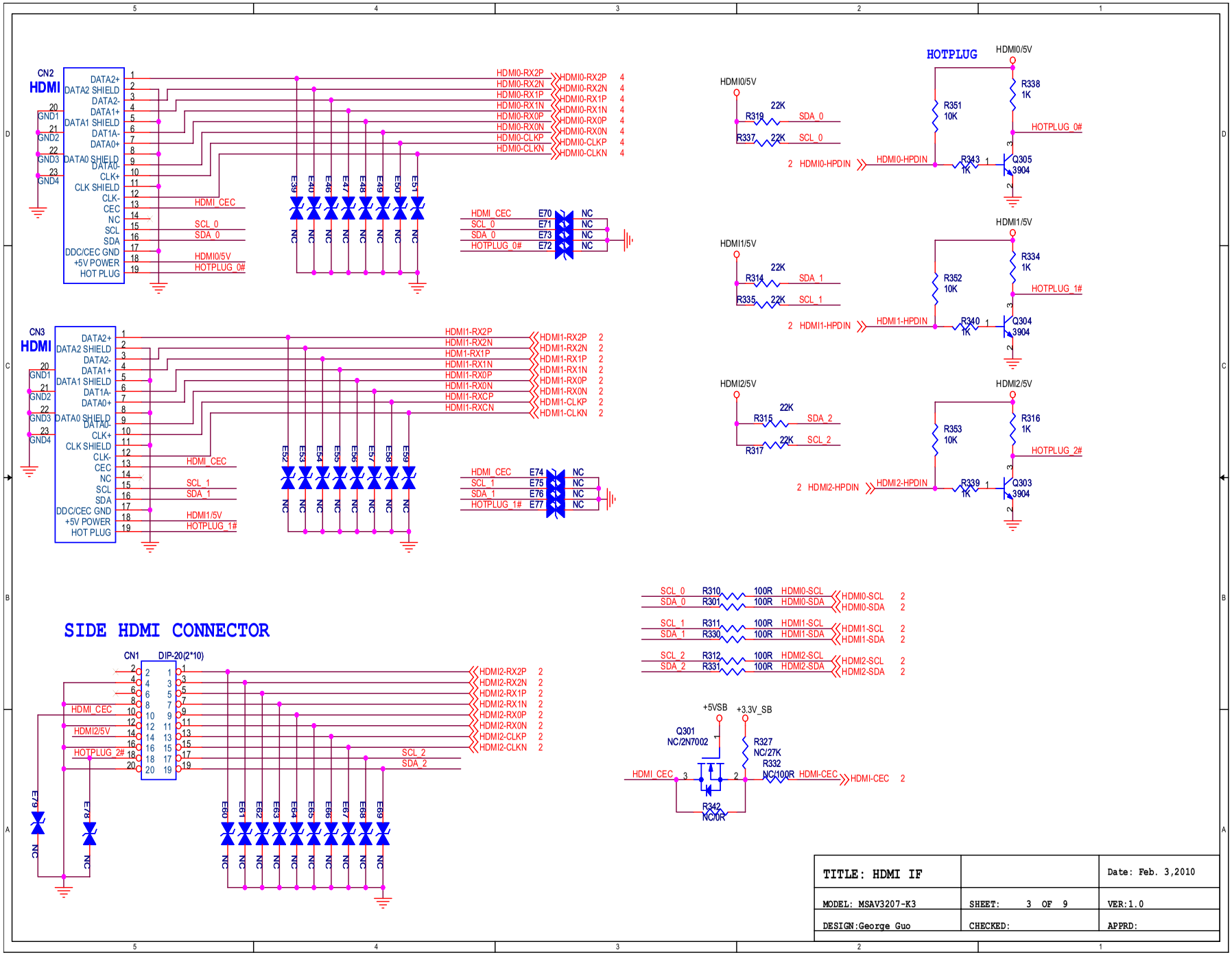


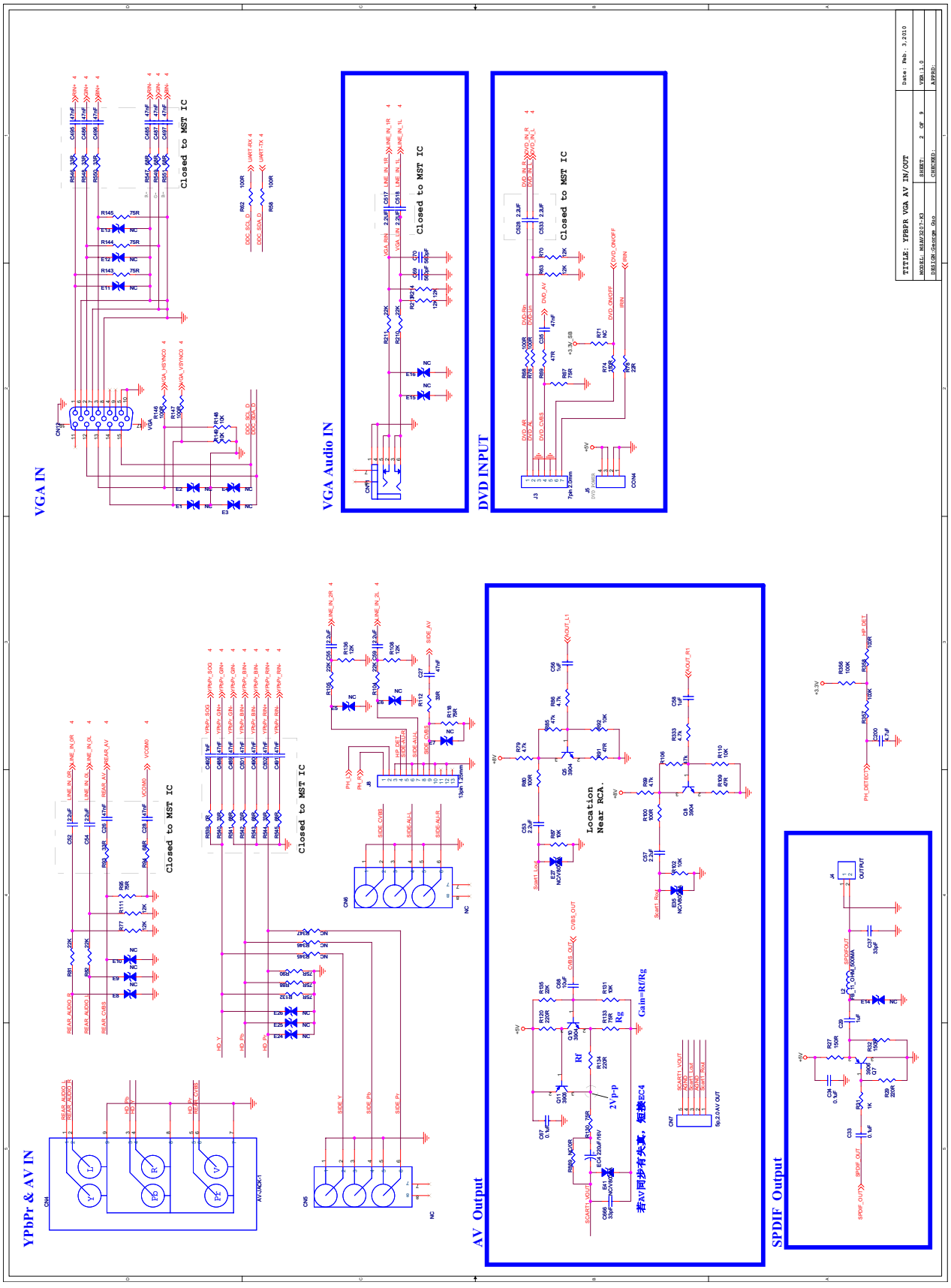


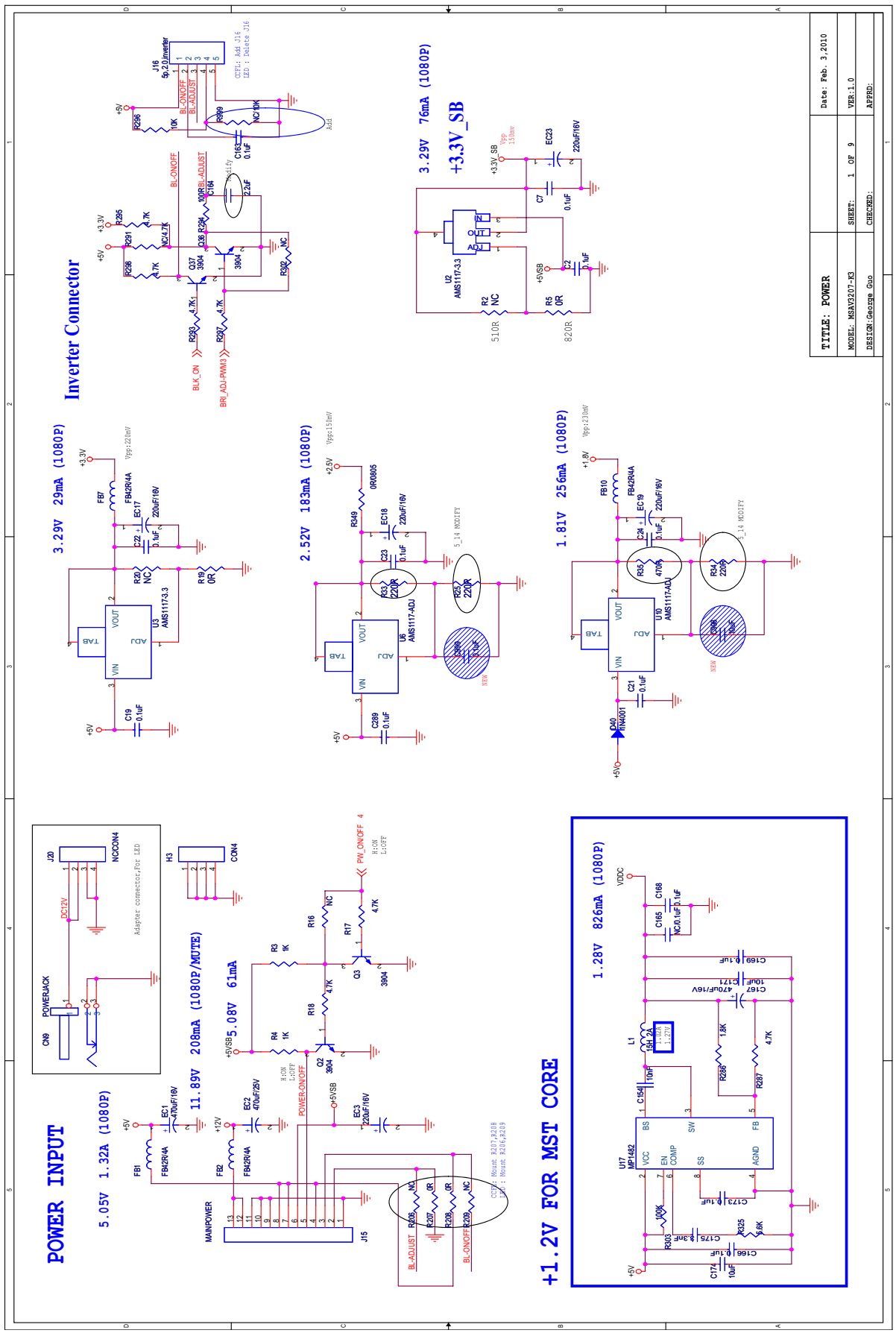
TITLE: LVDS&USB IF		Date: Feb. 3,2010
MODEL: MSAV3207-K3	SHEET: 6 OF 9	VER:1.0
DESIGN:George Guo	CHECKED:	APPRD:


TITLE: DDR2_16
Date: Feb. 3,2010
MODEL: MSAV3207-K3
SHEET: 5 OF 9
VER:1.0
DESIGN:George Guo
CHECKED:
APPRD:
U9
DDRII512M(P3R12E4JFF-G8E)
MIUA_MCLK
MIUA_MCLKZ
MIUA_MCKE
MIUA_WEZ
MIUA_CASZ
MIUA_RASZ
MIUA_BA0
MIUA_BA1
MIUA_BA2
MIUA_ODT
MIUA_DQSB0
MIUA_DQS0
MIUA_DQSB1
MIUA_DQS1
MIUA_DQM0
MIUA_DQM1
MIUA_DQ[15:0]
MIUA_A[13:0]
MIUA_ODT
+1.8V
Vpp 200mv
A_MVERF
C433 1UF
C432 0.1uF
C445 0.1uF
C441 0.1uF
C442 0.1uF
C443 0.1uF
C430 0.1uF
C431 0.1uF
C444 0.1uF
C468 0.1uF
RP1 22RX4
RP2 22RX4
RP3 22RX4
RP4 22RX4
RP5 75RX4
RP6 75RX4
RP7 75RX4
RP12 22RX4
RP15 75RX4
RP13 22RX4
RP39 22RX4
R66 22R
R1 22R
R73 75R
R13 75R
R107 10K
R116 10K
C428 10nF
C446 10nF
R84 100R
R83 100R

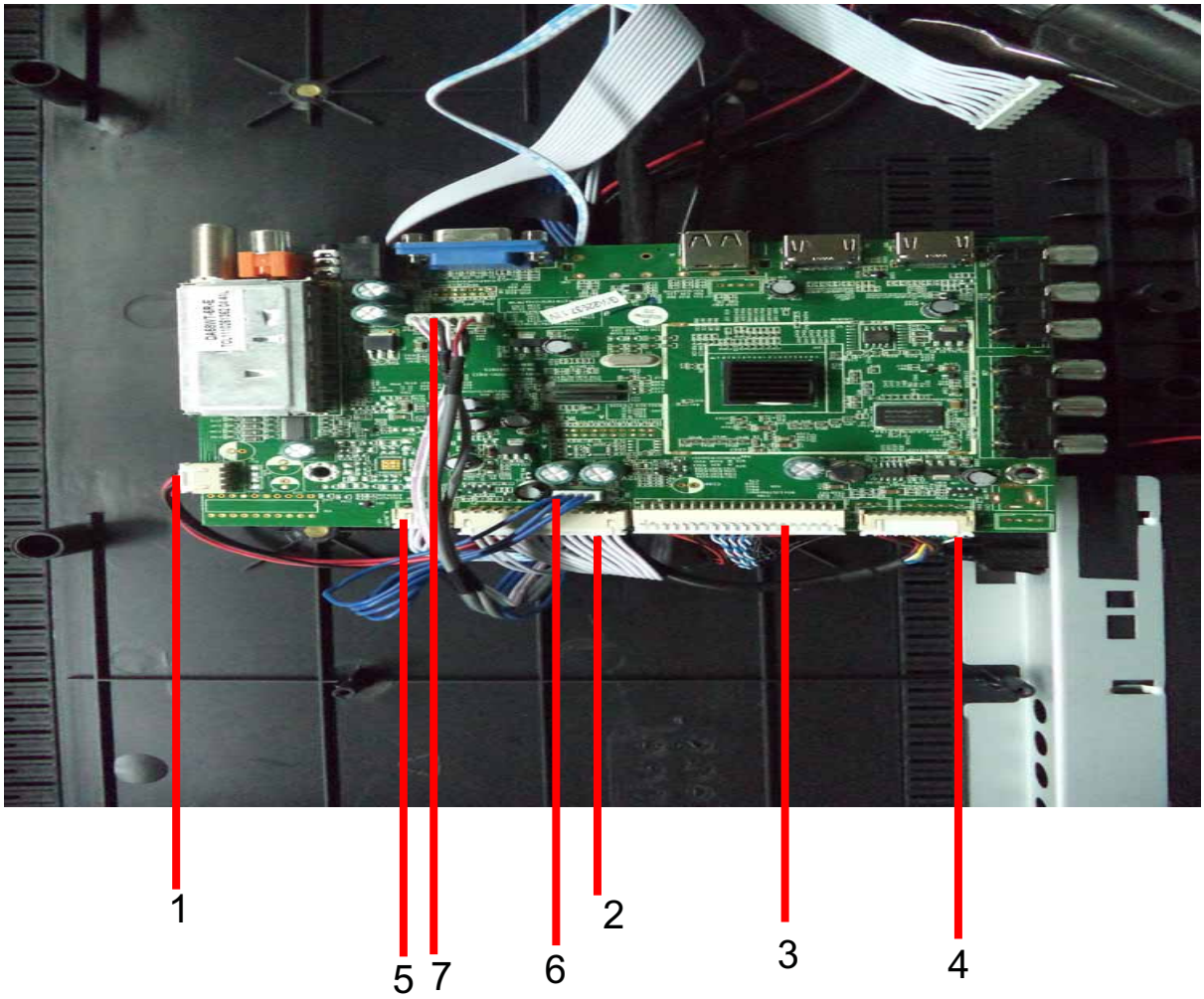

RGB Block
GPIO PULL-UP
CVBS Block
LVDS Block
Audio Block
NTSC RF
DIF BLOCK
USB Block
DDR2-SDRAM Block
System XTAL
HDMI Block
Reset
PM Domain
I2C-Master
XTAL
HDMI Inx3
USB Hostx2
Parallel Flash
PWM
Debug Port
GPIO
RGB Inx3
CVBS Inx6
Audio In/Out
I2S IN/OUT
SPDIF
Front End
PWR/GND
DDR2 16bit
LVDS
GPIO
DDR2 Power
MSTIC POWER MAIN
AUDIO_OUT
Place close to MSD318
KEY PAD
Boot Loader SPI Flash
DEBUG PORT
HDCP KEY
IC Configuration Selection
All Config Pin should be LOW
when SYSTEM power on
MSD318-ATSC
TITLE: MSD318
MODEL: MSAV3207-W3
DESIGN:George Guo
SHEET: 4 OF 9
CHECKED:
APPR:
Date: Feb. 3,2010
VER:1.0


CN2
HDMI
DATA2+
DATA2 SHIELD
DATA2-
DATA1+
DATA1 SHIELD
DAT1A-
DATA0+
DATA0 SHIELD
DATA0-
CLK+
CLK SHIELD
CLK-
CEC
NC
SCL
SDA
DDC/CEC GND
+5V POWER
HOT PLUG
HDMI0-RX2P
HDMI0-RX2N
HDMI0-RX1P
HDMI0-RX1N
HDMI0-RX0P
HDMI0-RX0N
HDMI0-CLKP
HDMI0-CLKN
HDMI_CEC
SCL_0
SDA_0
HDMI0/5V
HOTPLUG_0#
E58
E59
E60
E61
E62
E63
E64
E65
E70
E71
E73
E72
NC
HOTPLUG
HDMI0/5V
R319
22K
R337
22K
SDA_0
SCL_0
HDMI0-HPDIN
R351
10K
R338
1K
HOTPLUG_0#
R343
1K
Q305
3904
CN3
HDMI
HDMI1-RX2P
HDMI1-RX2N
HDM1-RX1P
HDMI1-RX1N
HDMI1-RX0P
HDMI1-RX0N
HDMI1-RXCP
HDMI1-RXCN
HDMI1-CLKP
HDMI1-CLKN
HDMI_CEC
SCL_1
SDA_1
HDMI1/5V
HOTPLUG_1#
E52
E53
E54
E55
E56
E57
E58
E59
E74
E75
E76
E77
HDMI1/5V
R314
22K
R335
22K
SDA_1
SCL_1
HDMI1-HPDIN
R352
10K
R334
1K
HOTPLUG_1#
R340
1K
Q304
3904
HDMI2/5V
R315
22K
R317
22K
SDA_2
SCL_2
HDMI2-HPDIN
R353
10K
R316
1K
HOTPLUG_2#
R339
1K
Q303
3904
SIDE HDMI CONNECTOR
CN1
DIP-20(2*10)
HDMI_CEC
HDMI2/5V
HOTPLUG_2#
HDMI2-RX2P
HDMI2-RX2N
HDMI2-RX1P
HDMI2-RX1N
HDMI2-RX0P
HDMI2-RX0N
HDMI2-CLKP
HDMI2-CLKN
SCL_2
SDA_2
E78
E79
E61
E62
E63
E64
E65
E66
E67
E68
E69
SCL_0
SDA_0
SCL_1
SDA_1
SCL_2
SDA_2
R310
R301
R311
R330
R312
R331
100R
HDMI0-SCL
HDMI0-SDA
HDMI1-SCL
HDMI1-SDA
HDMI2-SCL
HDMI2-SDA
+5VSB
+3.3V_SB
Q301
NC/2N7002
R327
NC/27K
R332
NC/100R
R342
NC/0R
HDMI-CEC
TITLE: HDMI IF
Date: Feb. 3,2010
MODEL: MSAV3207-K3
SHEET: 3 OF 9
VER:1.0
DESIGN:George Guo
CHECKED:
APPRD:


VGA IN
VGA Audio IN
DVD INPUT
YPbPr & AV IN
AV Output
SPDIF Output
Closed to MST IC
Location Near RCA.
Gain=Rf/Rg
2Vp-p
若AV同步有失真，短接EC4
TITLE: YPBPR VGA AV IN/OUT
Date: Feb. 3.2010
SHEET: 2 OF 9
VER:1.0


POWER INPUT
5.05V 1.32A (1080P)
11.89V 208mA (1080P/MUTE)
5.08V 61mA
+1.2V FOR MST CORE
1.28V 826mA (1080P)
Inverter Connector
3.29V 29mA (1080P)
2.52V 183mA (1080P)
1.81V 256mA (1080P)
3.29V 76mA (1080P)
+3.3V_SB
TITLE: POWER
Date: Feb. 3,2010
MODEL: MSAV3207-K3
SHEET: 1 OF 9
VER:1.0
DESIGN:George Guo
CHECKED:
APPRD:

7-2 .Wiring Connection Diagram



NO.N	ame
1	Connection Wire(For Speaker)
2	Connection Wire(Power For Mainboard)
3	LVDS Wire
4	Connection Wire(For Keyboard and Remote)
5	Connection Wire(Control for Backlight on/off)
6	Connection Wire(Control for DVD POWER)
7	Connection Wire(Control for DVD)

8. TV Operation

1. PICTURE MENU

The first item of the MENU is the PICTURE MENU. This menu provides several video adjustment options for fine tuning the video display.
Press ▼▲ to select, press ◀ ▶ to adjust, press MENU to exit.

1). Picture Mode: Select the user picture mode (Standard, Sports, Movie, Custom, Vivid).
2). Brightness: This will adjust the light output of the complete picture. This will mainly affect the darker areas of the picture.
3). Contrast: This will adjust the intensity of bright parts in the picture but keep the dark parts unchanged.
4). Color: This will adjust the saturation level of the colors to suit your personal preference.
5). Tint: Allows you to select color mix (tint) of the picture.
6). Sharpness: This will adjust sharpness of fine details in the picture.

Note:
If you want to adjust contrast, brightness, color, and sharpness, the picture mode must be set to "Custom". Standard mode is the default setting, if you select other options, the power consumption may change.

Advanced Video:

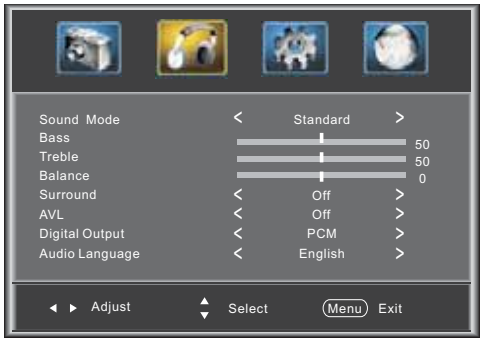
Press ▼▲ to select Advanced Video, press ▶, and the screen shown below will be displayed.

1). Color Temp: This will increase or decrease Warm (red) and Cool (blue) colors to suit your personal preference. Select Cool to give the white colors a blue tint, Normal to give the white colors a neutral tint, Warm to give the white colors a red tint.
2). Aspect: This will vary the size of the image on the TV screen. There are four modes which can be selected (Wide, Zoom, Cinema and Normal).
3). Noise Reduction: Adjust to reduce the appearance of noise in the picture (dots). There are five modes to choose from (Strong, Auto, Off, Weak and Middle).

2. AUDIO menu

The second item of the MENU is the AUDIO MENU. You can adjust sound options here.
Press ▼▲ to select, press ◀ ▶ to adjust, press MENU to exit.

1). Sound Mode: Select the user sound mode (Standard, News, Music, Theater, Sports, Custom).
2). Bass: Adjust to increase or decrease lower-pitched sounds.
3). Treble: Adjust to increase or decrease higher-pitched sounds.
4). Balance: Adjust to emphasize left or right speaker balance.
5). Surround: Turn on or off the simulated surround sound feature.
6). AVL: Auto Volume Leveler, This will reduce the differences in volume level during commercials or when changing the channel.
7). Digital Output: Select the digital sound signal that will be output from the coaxial audio output.
8). Audio Language: Select the audio language (English, French, Spanish).



Note:
The Audio language option is only available for ATSC (DTV) programs.

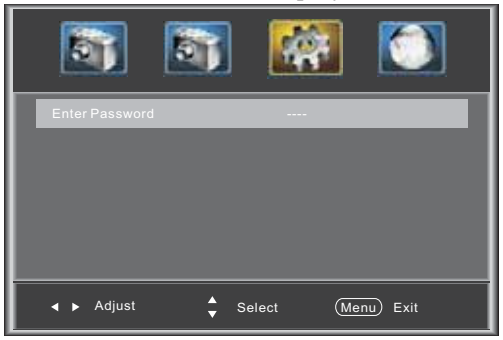
3. SETUP MENU

The third item of the MENU is the SETUP MENU. You can set system settings here.
Press ▼▲ to select, press ◀ ▶ to adjust, press MENU to exit.

Note:
Restore Default: Reset all settings to the factory default value.
Channel names that have been changed through the option in the Channel Menu are not reset when a restore default is initiated.

3.1. Parental Controls:

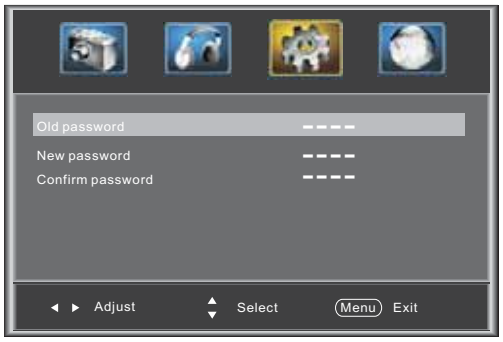
Press ▼▲ to select Parental Controls, press ▶ , and the screen shown below will be displayed.



Input the password, and you will enter the Parental Control menu. The factory default password is 0000.

Change Password:

Press ▶ , and the screen shown below will be displayed.



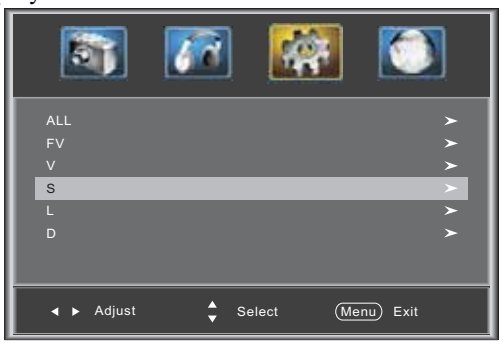
1). Old password: Input the old password
2). New password: Input the new password
3). Confirm password: Input the new password again

P.G switch:

When the Parental Control is ON, the options shown below can be adjusted.

US: Press ▶, and the screen shown below will be displayed.

1): TV: Press ▶, and the screen shown below will be displayed.



Rating	Content	Content				
		FV (Fantasy violence)	V (Violence)	S (Sexual situation)	L (Adult language)	D (Sexually suggestive dialog)
Suggested age	TV-Y (All children)					
	TV-Y7(Direct to order children)	X				
	TV-G(General audience)					
	TV-PG(Parental Guidance suggested)		X	X	X	X
	TV-14(Parents strongly cautioned)		X	X	X	X
	TV-MA(Mature audience only)		X	X	X	

Press the ENTER key to lock/unlock Parental Controls.

2). MPAA: switch the movie-rating control level: N/A, G, PG, PG-13, R, NC-17, X.

Rating		Description
Age	G	General audiences, All Ages admitted
	PG	Parental Guidance suggested. Some material may not be Suitable for children.
	PG-13	Parents strongly cautioned. Some material .may be Inappropriate for children under 13.
	R	Restrict. Under 17 requires accompanying parent or adult guardian (age varies in some jurisdictions).
	NC-17	No one 17 and under admitted.
	X	X is an older rating that is unified with NC-17 but may be encoded in the data of older movies.

Canada: Press ▶, and the screen shown below will be displayed.

1): Canada English: switch the English-rating control level: EXEMPT, C, C8+, G, PG, 14+, 18+.

Rating		Description
Age	E	Exempt: Includes news, sports, documents and other information programming: talk shows, music videos, and variety programming.
	C	Children: Intended for younger children under the age of 8 years. Pays careful attention to themes that could threaten their sense of securityand well-being.
	C8+	Children over 8 years old: Contains no portrayal of violence as the preferred, acceptable, or only way to resolve conflict; nor encourage children to imitate dangerous acts which they may see on the screen .
	G	General: Considered acceptable for all age groups, Appropriate viewing for the entire family, contains very little violence, physical, verbal or emotional.
	PG	Parental Guidance: Intended for a general audience, but may not be suitable for younger children (under the age of 8) because it could contain controversial themes or issues.
	14+	Over 14 Years: Could contain themes where violence is one of the dominant elements of the storyline, but it must be integral to the development of plot or character. Language usage could be profane and nudity, present within the context of the theme.
	18+	Adults: Intended for viewers 18 years and older and might contain depictions of violence, which while related to the development of plot, character or themes, are intended for adult viewing. Could contain graphic language and portrayals of nudity.

2).Canada French: switch the French-rating control level: E, G,8ANS+,13 ANS+,16ANS+,18ANS+.

Rating		Description
Age	E	Exempt programming
	G	General: All ages and children, contains minimal direct violence, but may be integrated into the plot in a humorous or unrealistic manner .
	8ans+	General but inadvisable for young children: May be viewed by a wide public audience, but could contain scenes disturbing to children under 8 who cannot distinguish between imaginary and real situations. Recommended for viewing with parental guidance.
	13ans+	Over 13 years: Could contain scenes of frequent violent scenes and intense violence.
	16ans+	Over 16 years: Could contain frequent violent scenes and violence.
	18ans+	Over 18 years: Only for adult viewing. Could contain frequent violent scenes and extreme violence.

RRT setting: in ATSC digital TV mode, this option could can be adjusted

Reset RRT: Press ▶, and the screen shown below will be displayed.

3.2 Timer

You can adjust the sleep timer and time related settings here. Press ▼▲ to select, press ◀ ▶ to adjust, press MENU to exit.

Sleep Timer: You can set the sleep timer.

Note:
Time zone, DST and Clock are available in ATSC mode, and the Clock can't be adjusted.

3.3 Closed Caption: switch the closed caption mode.

Press ▼▲ to select Closed Caption, press ▶ , and the screen shown below will be displayed.

1): Advanced selection: only available in ATSC mode.
2): Option: You can edit the closed caption options.
Press ▶, and the screen shown below will be displayed.

NOTE: Only available in ATSC mode.

3.4 Menu Settings

You can adjust Menu Settings here.
Press ▼▲ to select, press ◀ ▶ to adjust, press MENU to exit.

3.5 VGA Settings: Only available in VGA (PC input) mode.

Press ▼▲ to select VGA Settings, press ▶, and the screen shown below will be displayed.

1). H-Pos: Adjust the horizontal position of the screen.
2). V-Pos: Adjust the vertical position of the screen.
3). Clock: Fine tune the screen width.
4). Phase: Fine tune the phase of the screen. Usually you don't need to adjust this item option.
5). Auto: Auto adjust to fit the screen.

4. Channel MENU

Here you add/skip TV channels and customize displayed channel info.
Press ▼▲ to select, press ◀ ▶ to adjust.

1). Air/Cable: Select Air TV signal or Cable TV signal.
2). Auto Scan: If it's the first time using the TV, you should perform a full channel scan in order to capture and store all available channels.
Press the ▶ to confirm, and the screen shown below will be displayed.

Select "YES" and press the **ENTER** to confirm, and the screen shown below will be displayed, which indicates that the auto search is progressing.

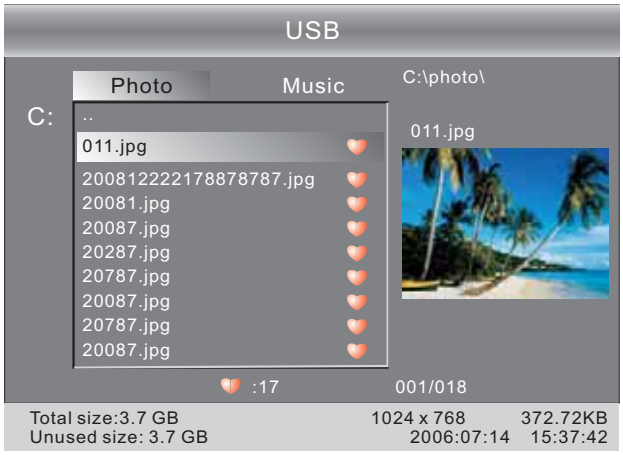
3). Favorite: Press ENTER to add/delete favorite channels.
4). Show/Hide: Press the ENTER button to display or hide channels.
5). Channel NO. : Display the current channel number. Press ◀ ▶ to change the channel.
6). Channel label: Press ▲▼ and ◀ ▶ to edit the current channel name.
7). DTV signal: Display DTV signal strength. Signal strength indicator is for reference only, it cannot be selected or adjusted.

5. Multimedia MENU

With an external storage device attached to the USB input, you can use the Multimedia Menu to display JPEG pictures and play MP3 music.

Before starting operation, verify that the USB storage device is using the FAT32 file system format. This television does not support NTFS or other formats. Please use a high-speed USB 2.0 device with a maximum capacity of 50GB.

1. Select a Photo
   The screen shown below will be displayed.



Use ▲▼ select the .jpg files or folders, press ENTER to display the photo or open the folder, press EXIT to stop playing or go to the previous menu.

2. Select Music
   The screen shown below will be displayed.

Use ▲▼ select the .mp3 files or folders, press ENTER to play or open the folder, press EXIT to go to the previous menu.

: play
: pause
: stop
: fast backward
: previous
: next
: fast forward
: repeat all
: random play

8.1 How to enter into the factory model
1. You can press "source-2-5-8-0" to go into factory setting. Presse the key "exit" to shut the factory setting.

Content:

1: ADC setting: set ADC value of YUV,VGA. It can also be auto-set. Adopt 100% color bar to yuv and Checkerboard signal to vga.
2:Color Temp.:
3:Video Quality:
4:Sound Quality:
5:Curve Setting:
6:Aging Mode:
7:Other Setting:
8:SW Upgrade:
9:Shipment:
The first line is SW Ver.No

8.2 How to update software

Haier MSD318QT F/W upgrade with USB SOP
Step 1: Ready for F/W Upgrade
1.1 Prepare a USB memory .
1.2 Copy the software file (merge) from your computer to the USB memory, and remove it from computer's USB port!
Step 2: F/W Upgrade
2.1 AC ON

2.2,Then input USB, press POWER.

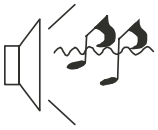
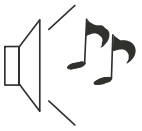
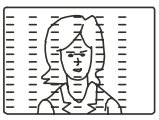
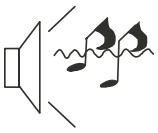
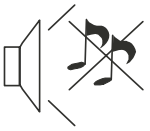
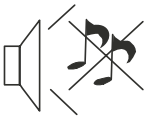
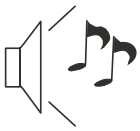
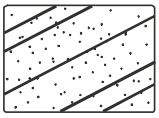
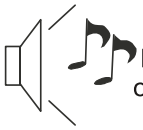
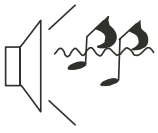
2.3 Then press "source-2-5-8-0" and choose "SW Upgrade",and then press "ENTER".

2.4,Now you should choose "Yes" and then press "ENTER" TV begin to update.You should remove the USB memory and reset TV after update.

Note: When Upgrade on the process, please don't Power-Off!

9. Trouble shooting

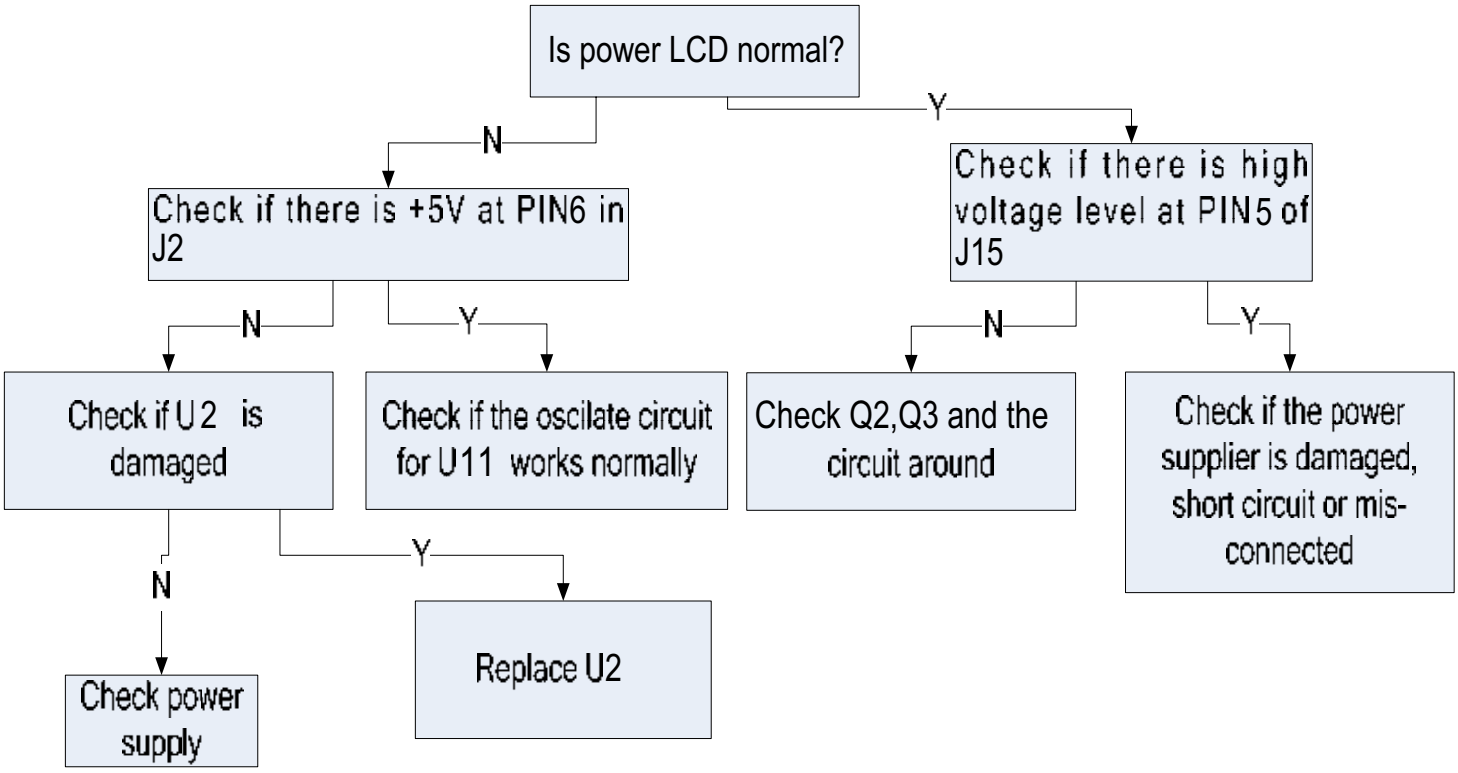
9-1. Simple check

Trouble phenomenon		Inspection
Picture	Audio	
Snow	 Noise	antenna position, direction or connection
Ghost	 Normal audio	antenna position, direction or connection
 Interfere	 Noise	electronic equipment,car/ motorcycle,fluorescent light
Normal Picture	 Mute	Volume(inspect wether the mute function on the remote control are started , or audio system are correct or not)
No picture	 Mute	Power cord is not inserted Power switch is not opened Contrast and brightness/volume setup Press standby key on the remote control for inspecting
No color	 Normal audio	color control
 Scramble	 Normal audio or weak	retune channel
No color	 Noise	Audio system

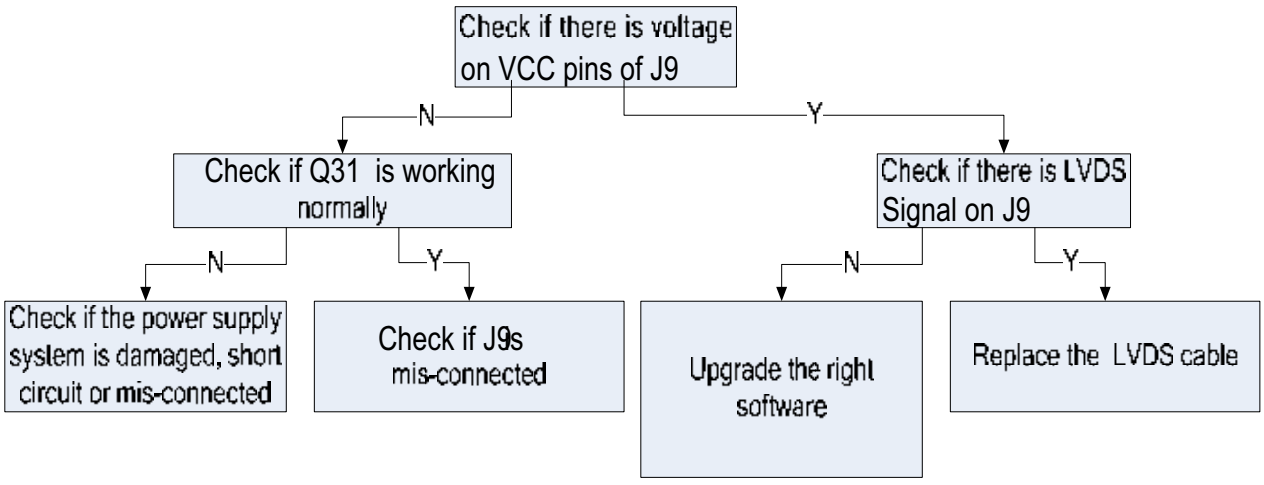
Special Explanation：The accessories such as remote control is not belongs to the guarantee。

9-2. Main board failure check

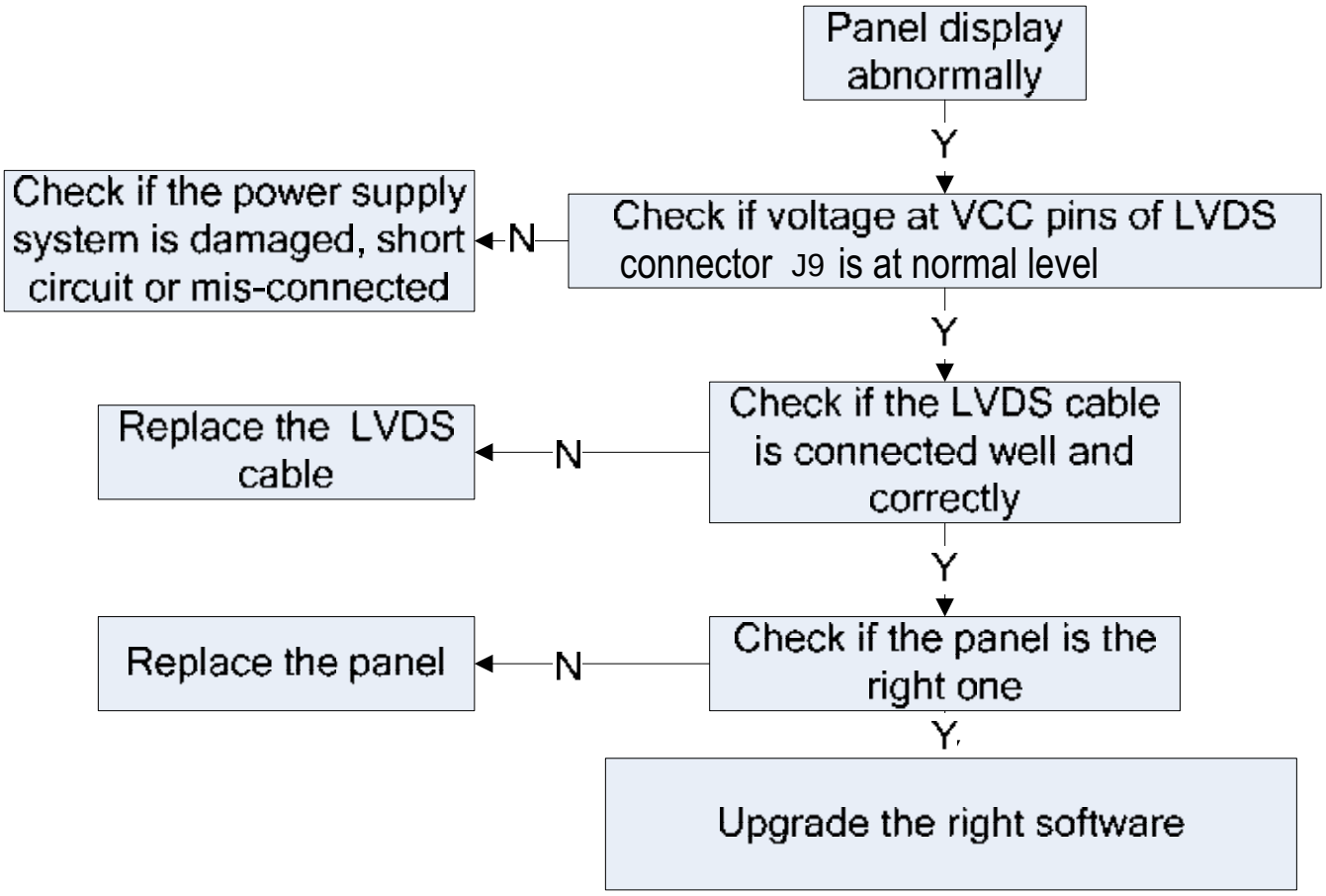
1) Black creen


Is power LCD normal?
Y
N
Check if there is +5V at PIN6 in J2
Check if there is high voltage level at PIN5 of J15
N
Y
N
Y
Check if U2 is damaged
Check if the oscilate circuit for U11 works normally
Check Q2,Q3 and the circuit around
Check if the power supplier is damaged, short circuit or mis-connected
N
Y
Check power supply
Replace U2

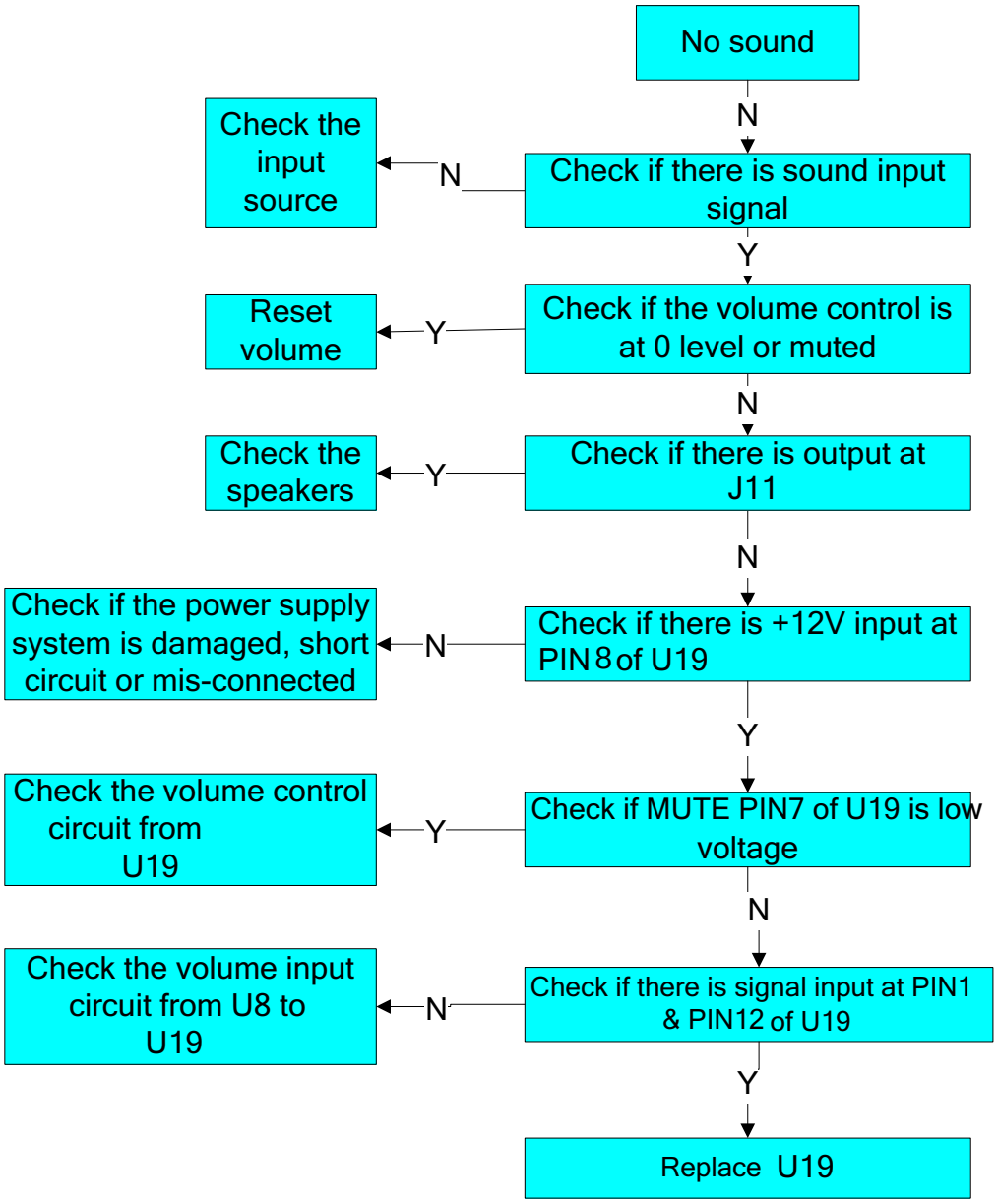
2) White screen


Check if there is voltage on VCC pins of J9
N
Y
Check if Q31 is working normally
Check if there is LVDS Signal on J9
N
Y
N
Y
Check if the power supply system is damaged, short circuit or mis-connected
Check if J9s mis-connected
Upgrade the right software
Replace the LVDS cable

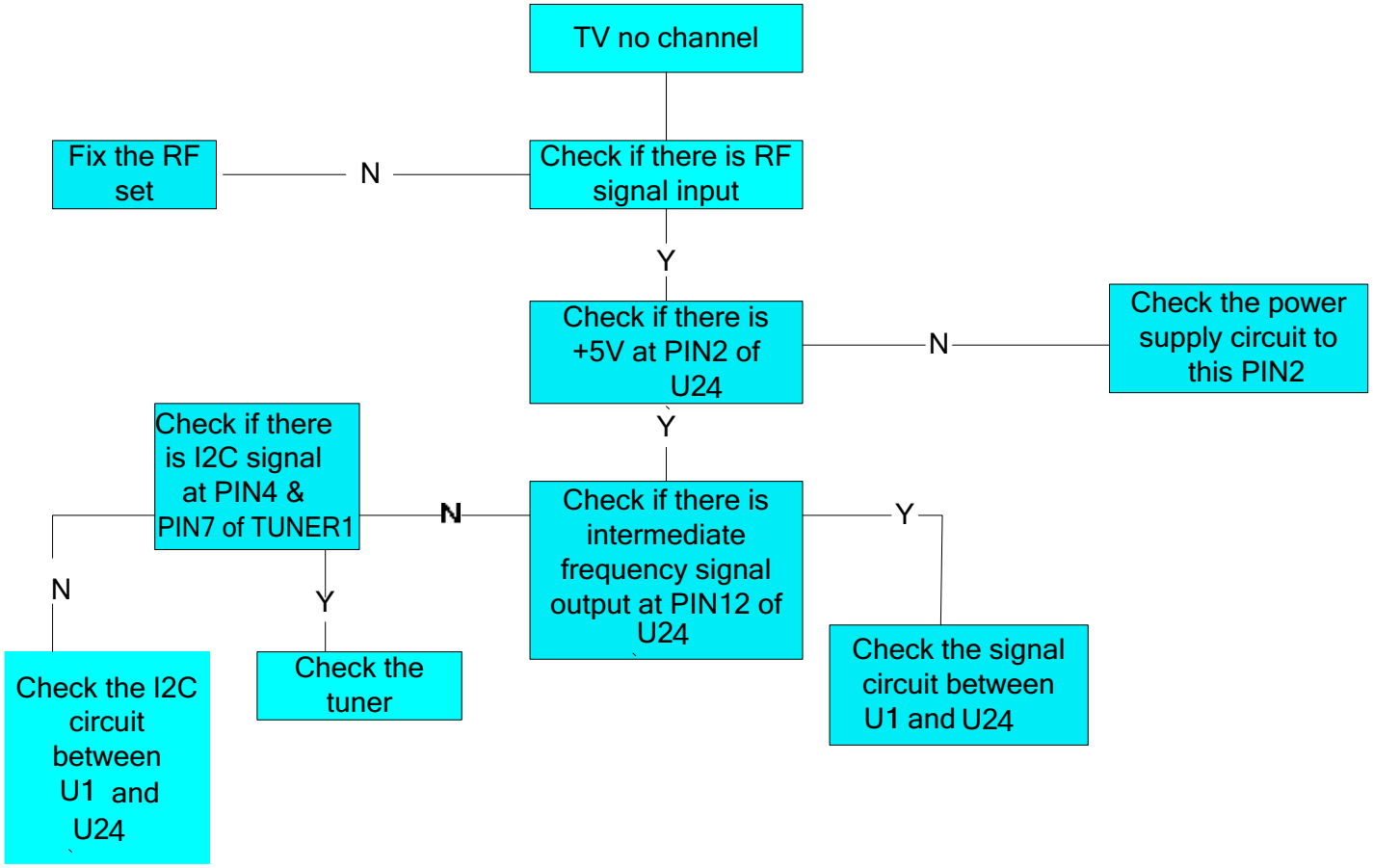
3) Panel display abnormally


Panel display abnormally
Y
Check if voltage at VCC pins of LVDS connector J9 is at normal level
N
Check if the power supply system is damaged, short circuit or mis-connected
Y
Check if the LVDS cable is connected well and correctly
N
Replace the LVDS cable
Y
Check if the panel is the right one
N
Replace the panel
Y
Upgrade the right software

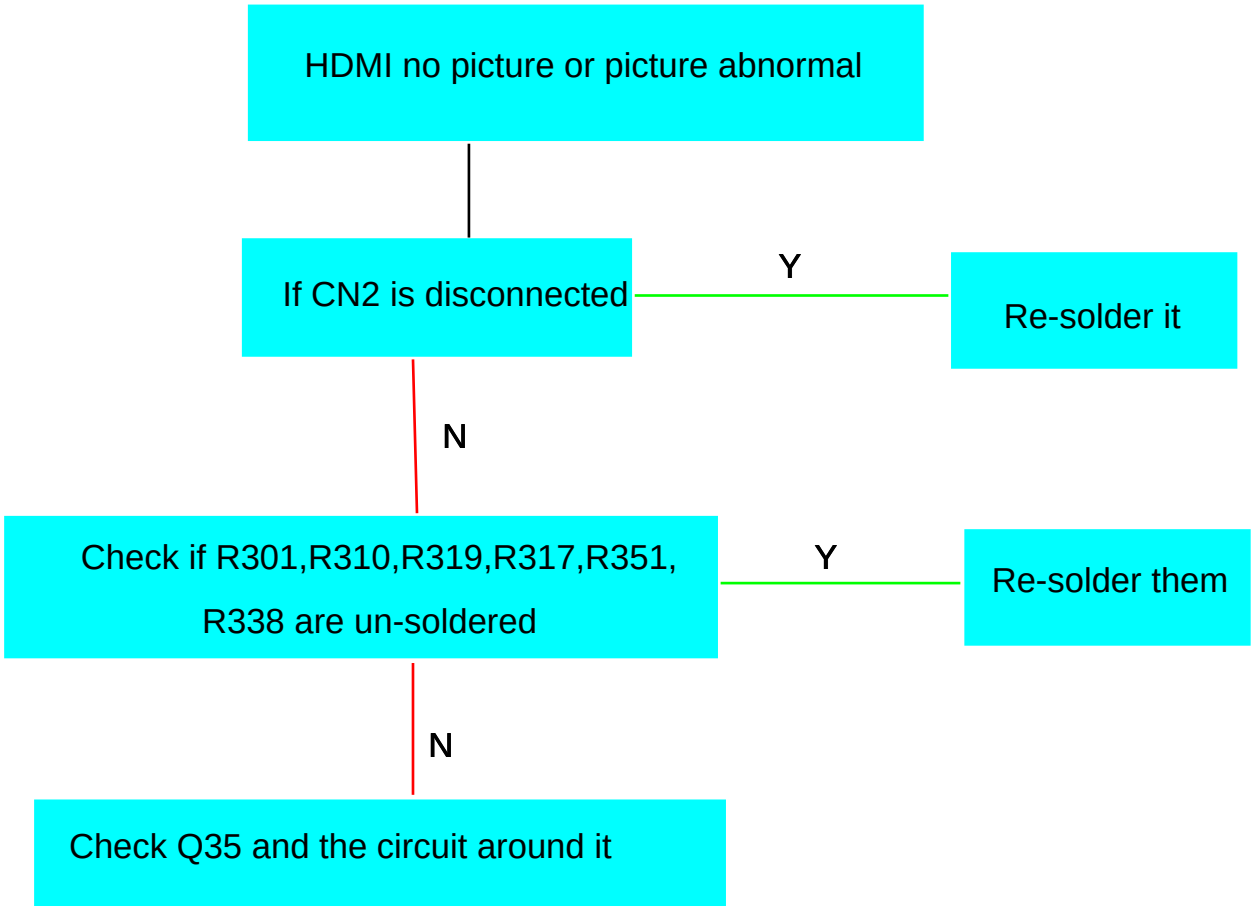
4) No sound


No sound
N
Check if there is sound input signal
N
Check the input source
Y
Check if the volume control is at 0 level or muted
Y
Reset volume
N
Check if there is output at J11
Y
Check the speakers
N
Check if there is +12V input at PIN 8 of U19
N
Check if the power supply system is damaged, short circuit or mis-connected
Y
Check if MUTE PIN7 of U19 is low voltage
Y
Check the volume control circuit from U19
N
Check if there is signal input at PIN1 & PIN12 of U19
N
Check the volume input circuit from U8 to U19
Y
Replace U19

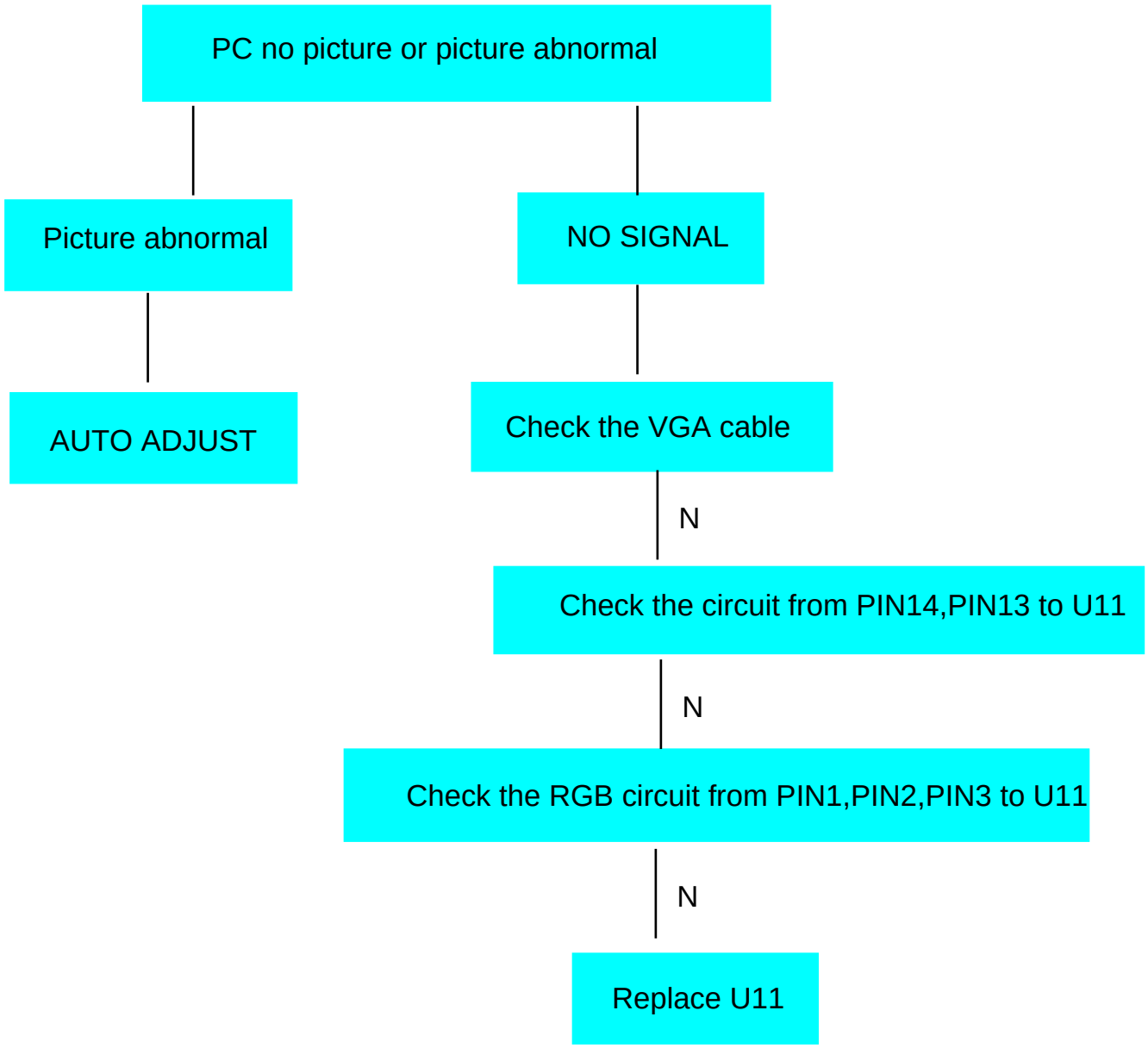
5）TV failure


TV no channel
Check if there is RF signal input
N
Fix the RF set
Y
Check if there is +5V at PIN2 of U24
N
Check the power supply circuit to this PIN2
Y
Check if there is intermediate frequency signal output at PIN12 of U24
N
Check if there is I2C signal at PIN4 & PIN7 of TUNER1
Y
Check the signal circuit between U1 and U24
N
Check the I2C circuit between U1 and U24
Y
Check the tuner

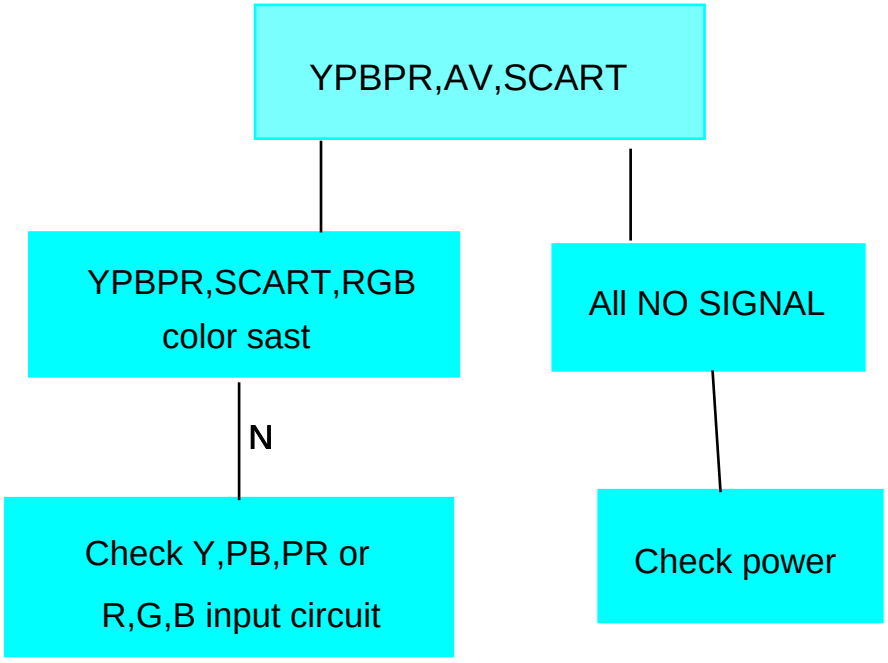
(6) HDMI no picture or picture abnormal



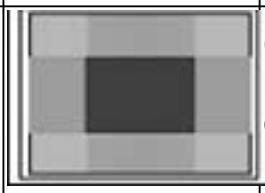
(7)PC no picture or picture abnormal



(8)YPBPR,AV,SCART NO Picture or picture abnormal



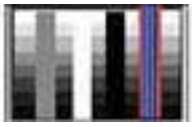
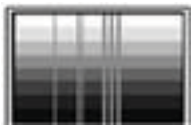
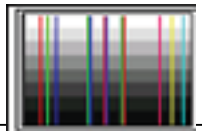
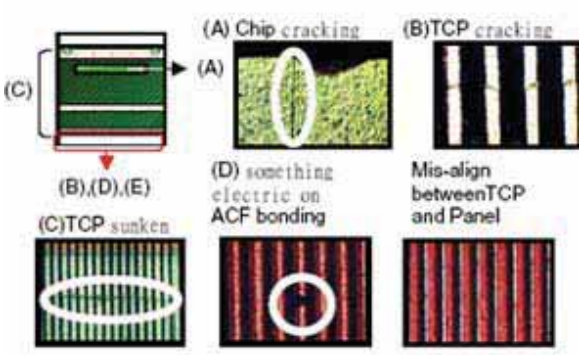
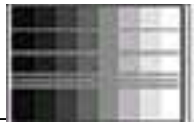
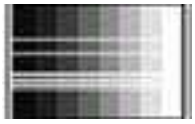
Failure Mode

Part	Name	Description	Phenomena	Failure cause
Circuit	White Screen	B/L normal, only white screen display		Maybe caused by surge current and EDS
	Black Screen	B/L normal, only Black screen display		
	FIIcker	Crosstalk		LCD Vcom imbalance
	Abnormal Color	Only color abormal		Capacitance improper bring crosstalk inside LCD pannel
	Abnormal Color	Only color abnormal		1.Chip lose action 2.IC short or jointion bad 3.Pannel and vsc connect bad

Part	Name	Description	Phenomena	Failure cause
Panel or Polarlzer	Dot Defect	Bright dot dark dot in pannel		Incoming Inspection Standard
	Polarizer Bubble	Bladder in Polarizer		Bladder between Polarizer and top glass
	Polarizer Scratch	Polarizer Scratch		Tine or rigidity arose
	F/M inside Polarizer	Eyewinker inside Polarizer		Eyewinker inside Polarizer
Circuit	Abnormal Display	Abnormal Display		1.Chip lose action 2.IC ahort or jointiog bad 3.Pannel and vsc connect bad
	Flashing	Bright and dark display alternately		

9-3. Pannel failure

Failure Mode

Part	Name	Description	Phenomena	Failure cause
TCP	V B/D	Vertical bar		Block Defect :TCP cracking or cracking Dim or L/D :TCP Sunken :TCP lead cracking :ACF bonding short :Awful environment and something electric enter into LCD :Mis-align between TCP and Panel :Panel failure :TCP failure
	V Dim	Vertal gray line		
	V L/D	Vertical color line(light or dark forever)		
	H B/D	Horizontal bar		
	H Dim	Horizontal gary line		
	H L/D	Horizontal line(light or dark forever)		

Failure Mode

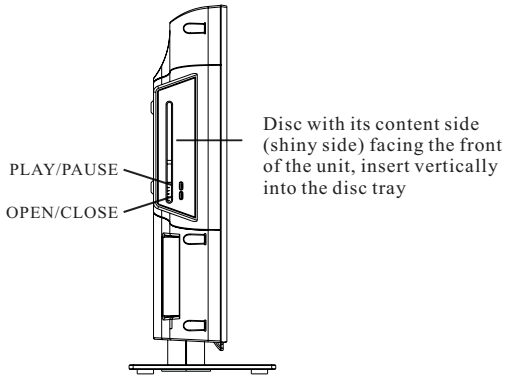
Part	Name	Description	Phenomena	Failure cause
	Mechanlcal Nolse	When turn panel,appear cacophony		Caused by Mechanica noise of backlight unit
	Ripple	Connectric circle		Causeed by between mechanism and pannel
	B/L off	B/L lose action		*Connect badness between wire and electrode
	B/L dark	B/L brightness darker than normal		*Connect badnessShort between wire and electrode
	B/L wire damaged	B/L wire damaged		Operation abnormal or systemic noise
	B/L wire open	Without backlight		Operation abnormal or systemic noise
	B/L shut down	B/L shutdown in sometime		Short bitween lamp housing and wire, Because consume power too much
	F/M	F/M inB/L ,white,balck Rotundity or wirelike		F/M in B/L unit

Failure Mode

Part	Name	Description	Phenomena	Failure cause
Mechanlcal or B/L	Light leakage	Brightness at bottom of LCM brighter than normal		B/L unit badness
	Uniformity	B/L brightness asymmetric		Sheet in B/L unit is uneven
	Mount hole	Lack screw or screw damage		*Lack screw Screw damage

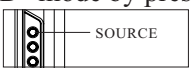
10. DVD OPERATION

DVD SIDE PANEL


PLAY/PAUSE
OPEN/CLOSE
Disc with its content side (shiny side) facing the front of the unit, insert vertically into the disc tray

How to play a DVD disc

1. Change the TV input source to "DVD" mode by pressing the SOURCE button on the remote or on the side of the TV.



2. Place the DVD disc in the slot with the content side (shiny side) facing the front of the unit.

3. The DVD disc will automatically be loaded in to the player and begin to play.

4. To eject the DVD disc, press the CH LIST/⏏ button on remote or the OPEN/CLOSE button on the side of the unit.

Caution

This DVD Player has a Class 1 laser which may be harmful to your eyes. Do not attempt to disassemble the cabinet or make any adjustments. Refer all servicing to a qualified professional.

Features
Disc formats supported by this player:

Dolby Digital

Multi-angle

MP3 files on CD-R/CD-RW

Subtitle choices

DVD video

Audio choices

R RESTRICTED

Parental Lock

16:9 LB

TV Aspect Ratio modes

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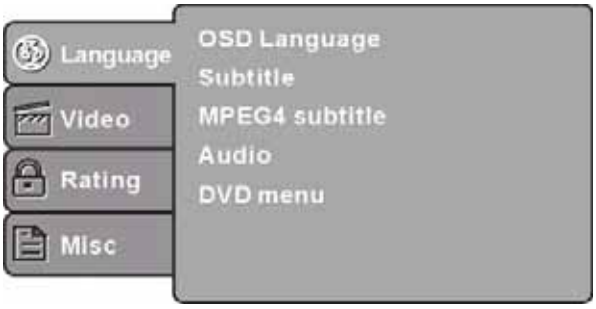
MENU OPERATION
Press the SETUP button on the remote control, the SETUP MENU will be displayed. After accessing the setup menu, press to select an item, and press to select the SUBMENU item. Then press the ENTER/OK button to confirm. Press ▼▲ return to the previous menu. To exit the setup, press the SETUP button again. In the SETUP MENU, you may choose adjust any of the following options.

LANGUAGE SETUP
Select Language in the setup menu, and display the Language submenu:



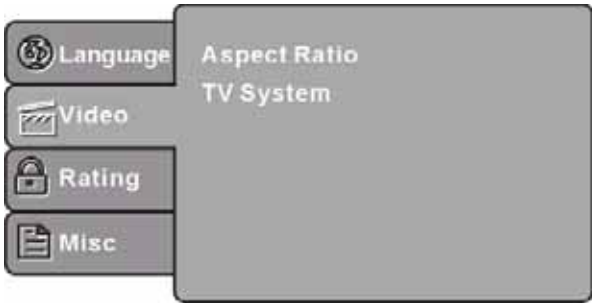
OSD Language
Use this item to select the desired language for the setup menu and screen display.

Subtitle
This option provides the preset subtitle language.

Audio
Select the built-in disc dubbing language options.

DVD Menu
This option provides the film's menu language options.

VIDEO SETUP
Select **Video** in the setup menu, and display the **Video** submenu:

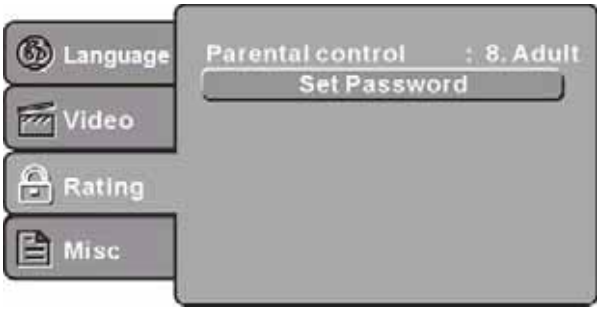


SYSTEM SETUP

Aspect Ratio
Select the aspect ratio.
Notes:
The image display ratio is related to the recorded disc format. Somes discs can not display images in the aspect ratio you choose. If you play a disc recorded in 4:3 format on a wide screen TV, black bars will appear on the left and right side of the screen. You must adjust the screen setting depending on the type of the television you have.

TV System
Select the TV system.
Note: The DVD player setting should be matched to your TV set. For more information on output format, refer to the instructions or your TV set.

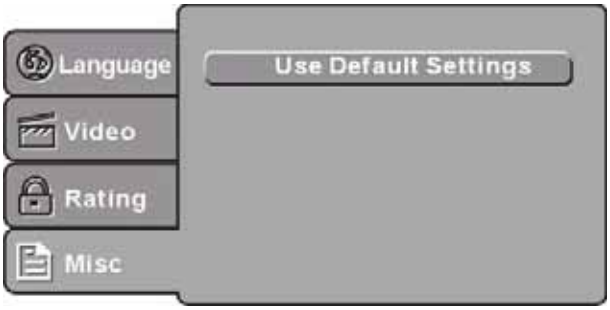
RATING SETUP
Select **Rating** in the setup menu, and display the Rating submenu:



Parental Control
Set the parental control feature of the player
***Note*:** The password is needed to set up the Parental Control.

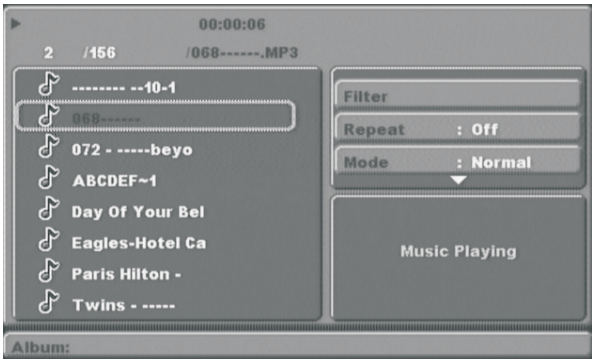
Set Password
Input four digits (password), then press **ENTER /Ok** to confirm.
Note: If you forget your password, please use the universal password 6666 to unlock.

MISC SETUP
Select **MISC** in the setup menu, and display the submenu:



Use Default Settings
Reset setup data to factory default value.

MP3/JPEG PLAYBACK

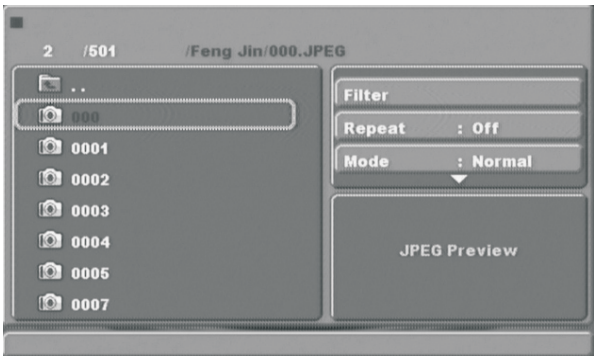


The MP3 disc has a directory structure as shown picture above. Press to choose the root directory and then press ENTER/OK button to enter into the sub directory. Press to choose the desired track and then press **ENTER/OK** or **PLAY** to enjoy the music or movie. If you want to return to the previous menu, press to choose the icon and press the **ENTER/OK** button.

Filter: Select the categories of files that are displayed in the browser list.
Repeat: Change the repeat playing mode
Mode: Select different play modes:
Normal: Play chapters/tracks in normal order.
Shuffle: Play tracks/chapters in a random order until all tracks/chapters have been played.
Edit Mode: Program tracks/chapters to play. When you select the mode, press to directory and press **ENTER/OK** to choose the desired track. Select **Add to program.** Select **Program view** and select **Edit mode** to cancel the edit mode. Press to display the programmed tracks and press **ENTER/OK** to start playback.
Program view: Display the programmed tracks.
Browser view: Display the track directory.
Add to program: Choose the track select **Add to program** to add the track to the program play list.
Clear program: In the complete stop state (press the **STOP** button twice), select **Edit mode** to enable the edit mode. Press to program track and press ENTER/OK to cancel the desired track. Select **Clear program** to delete all tracks in the program play list.

PICTURE CD PLAYBACK

The PICTURE CD disc has such a directory structure structure as shown in the following picture.



Press **Direction key** to choose the root directory and then press ENTER/OK button to enter into the sub directory. Press **Direction key** to choose the desired picture and then press **ENTER/OK** or **PLAY** to enjoy the picture. If you want to return to the upper menu, press **Direction key** to choose the icon and press **ENTER/OK** button.

Image rotation

In picture play state, press **Direction key** to rotate the picture.

Function Buttons

INSERT/EJECT ⏏
Press this button to insert/eject the disc.
SUBTITLE
Press this button to select different subtitles subtitles *(This function must be supported on the disc)*
GOTO
For DVD discs, press this button to jump to a selected title time and chapter time.For Super VCD,VCD,CD discs, press this button to search the desired disc time and track time and choose the desired track.
Note: During VCD playback, the PBC mode must be set to OFF.
0-9 keys
These buttons are used to input the time, as well as title, chapter and track numbers.When a numeric item is displayed on the screen, press the 0-9 keys to select the desired entry, and press ENTER/OK to confirm.
When a VCD is playing(with PBC off), press the 0-9 keys to select a track directly.
MENU
During DVD playback, press MENU to display the disc menu of the current title.
During VCD/SVCD playback, press MENU to control PBC ON/OFF.
SETUP
Press this button to enter the system setting menu. Press the button again to exit the menu.
RETURN
When a DVD/SVCD/VCD is playing, press the RETURN button to return to the menu(PBC ON only).

DISPLAY
Press this button to show the information of the current disc.
ENTER
Press the button to confirm your choice on the screen.
REV
During DVD, CD MP3 or VCD playback, press REV to scan in reverse.
Press PLAY/PAUSE to resume normal playback.
FWD
During DVD, CD,MP3, or VCD playback, press FWD to scan forward. Press PLAY/PAUSE to resume normal playback.
PREV
During DVD, CD,MP3, or VCD playback, press **PREV** to play the previous chapter, title or track.
NEXT
During DVD,CD,MP3, or VCD playback, press **NEXT** to play the next chapter, title or track.
STOP
Press the button once and the player will be in the memory stop state. Press this button twice and the player will be in the complete stop state.
Play/Pause
Press this button to play/pause the disc.
REPEAT
Press to select between different repeat modes — Repeat Chapter / Repeat Title / Repeat Off（for DVD discs）, Repeat Single/ Repeat Folder/All/ Repeat Off(for VCD/CD/MP3 discs)
AUDIO
Changes the audio language or audio channel.

11.DVD TROUBLE SHOOTING

If you have any questions, please consult the troubleshooting guide below:

NO PICTURE OR SOUND

- Ensure the power button is on.
- Ensure the power outlet is operational.
- Ensure the power cord is not damaged.
- Ensure the power plug is connected
- firmly to the outlet.

PICTURE BUT NO SOUND

- Ensure the audio is not set to mute.
- Ensure you have set the AUDIO settings correctly.

POOR PICTURE OR SOUND

- Ensure you have set the player s AUDIO settings correctly
- Ensure the disc is not scratched or stained.

"BAD DISC" DISPLAYED

- Ensure the disc is not warped, damaged or deformed.
- Ensure the disc is not badly stained or damaged.
- Ensure the disc format is compatible with the player.
- Please check whether you have tried to play a software CD. If so, please restart the player.

REMOTE NOT WORKING

- Ensure the batteries in the remote control are working.
- Point the remote control directly at the player s IR sensor.
- Remove any obstacles between the remote and the IR sensor.
- ,
-

UNIT NOT WORKING

- Turn off the power, and then turn it on again.

"NO DISC" DISPLAYED

- Ensure you have put the disc in the DVD player.
- Ensure the disc is inserted properly (shiny side facing out).
- Ensure the disc is not distorted, stained or scratched.

Sincere Forever

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